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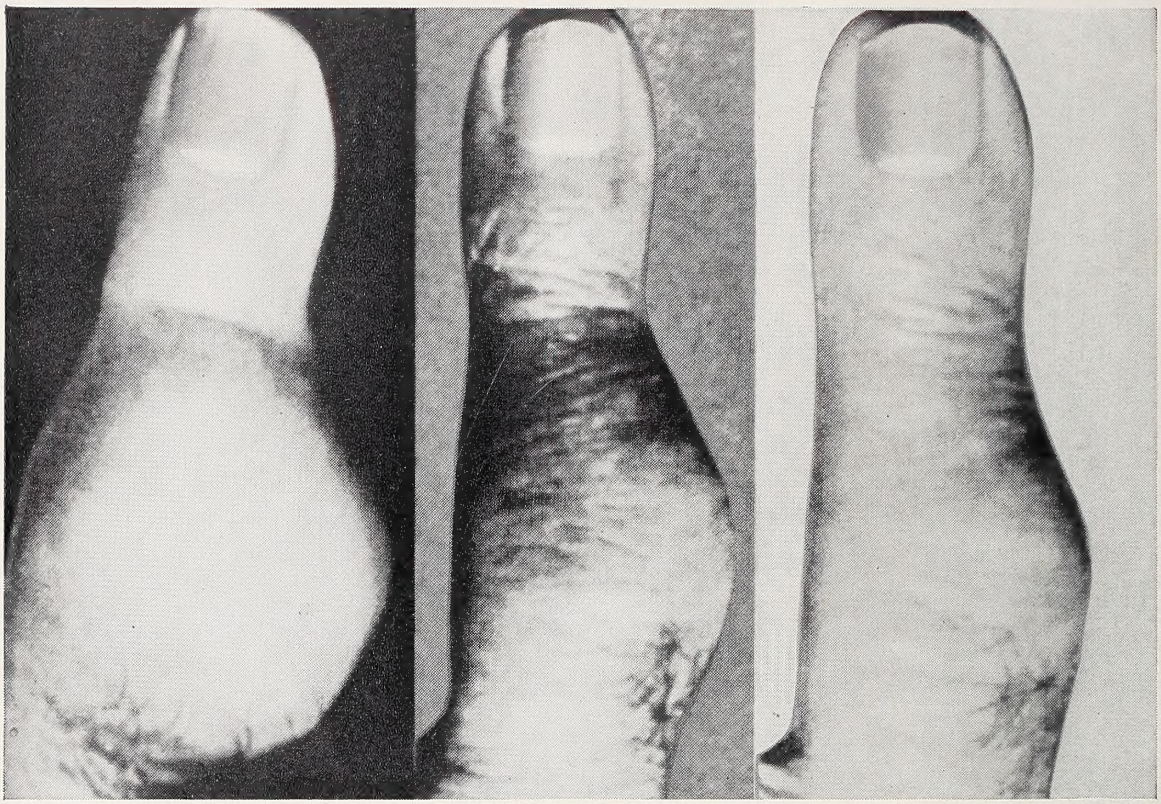

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Physician Tells Why Injections Hurt

Practically everyone at some time or another has had an injection and practically everyone knows it hurts sometimes. A New York City physician explains just why—and what can be done about it.

It's not just the jab of the needle as it punctures the skin that causes the trouble, according to Dr. Janet Travell, of Cornell University Medical College. Her report on injection pain appeared in a recent issue of the *Journal of the American Medical Association.*

There are three reasons why the injection hurts, she said. One is mechanical—the needling, or sudden distention of tissues from rapid injection of fluid. The others are irritation—due either to antiseptic on the skin or to the injected fluid itself, and abnormal sensitivity of the skin or the muscle.

She strongly disagreed with the notion "that some pain is to be expected from the mere jab of the hypodermic needle," and said "given a nonirritant solution" injections can be made painless.

She said the best way to eliminate skin pain is by cold. Years ago an ice cube helped; now sprays of powerful cooling agents that do not themselves irritate can be used. Muscle pain can be avoided by testing for and avoiding "trigger areas" that are especially sensitive, or by using a local anesthetic in the injected fluid. This may also help relieve pain from irritant solutions.

On questioning a professional audience, she said she found only one in a hundred had never had an injection, and only about ten per cent said they did not dread the next one. With the technique she described, she said "pain of injection is not inevitable."

Chicago Reduces Deaths Among Newborn

The city of Chicago has been cutting down on needless deaths of the newborn by something new in public health—a hospital "alerter system."

Dr. Herman N. Bundesen, president of the Chicago Board of Health, described the system and its results in a recent issue of the *Journal of the American Medical Association.*

The purpose of the Chicago program was to find ways and means of preventing the toll taken by hebdomadal deaths.

Since the program began in 1953, hebdomadal death rates have been considerably diminished. Before the system started, 17 hospitals had hebdomadal death rates considered "high"—rates of 18 or more per thousand live births. In 1954 there were only eight hospitals with high rates. For the last six months of 1954 there were only 12 hospitals under the alerter system with preventable death rates of 10 or over.

The rate for all hebdomadal deaths with preventable factors was 10 per thousand live births in the first six months of 1954 and 7.6 in the last six months. Some hospitals reduced their hebdomadal death rates as much as 63 per cent for 1954, and preventable deaths in the first week were reduced throughout the city.

Dr. Bundesen explained that "preventable deaths" in some cases resulted from faulty practices on the part of the hospitals and their staffs before the alerter system began. However, he pointed out that "none of these institutions wanted to have needless deaths, but they were just not aware of their occurrence."

A major factor in their lack of knowledge was imperfect record keeping, he said. Thus the first step in the program was to insure accuracy and completeness in recording the causes of all deaths.

"When the actual causes of death are known, and the faulty practices contributing to such deaths also are known, we are in a better position in many cases to exert the necessary well-established corrective efforts to eliminate the faulty practices that contribute to deaths from these causes," he said.

The complete facts in each death are recorded by the health department from hospital and other records, and tabulated hospital-by-hospital. Then these statistics are arranged on the "master control panel."

This panel is the "nerve center" of the system. Totals of all deaths, rates for each hospital, and the hospital's rank for death rates among all hospitals appear on the board. Flashing red lights tell health officials which hospital needs to be alerted that its rate is too high.

All hospitals are kept posted constantly on their rates and status. A high-rate hospital alerted by the health department already may have started correcting the faulty practices revealed in regular reports given it. If not, health officials confer with the hospital administration.

"Since nearly all of the deaths of infants during the early days of life occur in the hospital in which the infant was born, there is at this time an urgent need for intensifying the effort to improve the quality of obstetric and pediatric services rendered in hospitals," he said. "The alerter system . . . (a recent development in public health), one of the most important phases of the present Chicago public health program to prevent needless hebdomadal deaths, fulfills this urgent need.

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Consultant Refutes Idea About Cancer

The theory that vegetarians are less likely to get cancer than meat eaters just can't be proved, a physician declares.

Writing in answer to a query in a recent issue of the *Journal of the American Medical Association,* the consultant said there is no important evidence to back up the theory.

There are two exceptions to the general rule that vegetarians and meat eaters are equally susceptible, the consultant said. Women who have a disease called Plummer-Vinson syndrome, which apparently results largely from lack of iron and vitamin B, tend to have more cancers of the mouth, pharynx, and esophagus. This deficiency is due mostly to the unavailability of green vegetables most of the year.

The other exception is the high incidence of cancer of the liver among the African Bantus, who eat virtually no meat.

The consultant said there is some evidence that the quantity of calories eaten appears to make more difference than the kinds of foods.

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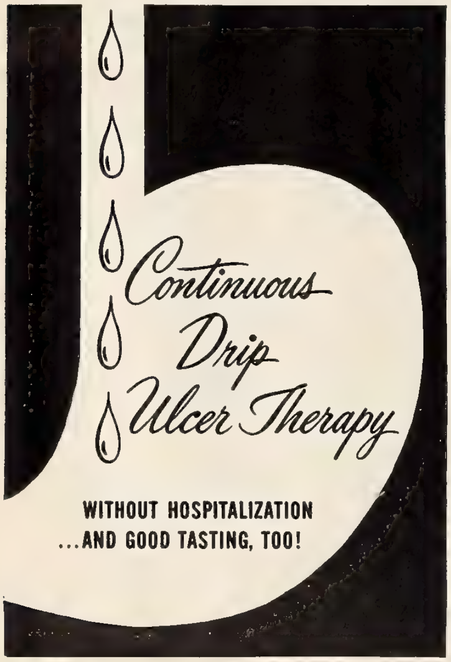

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*Steigmann, F., and Goldberg, E.: Ambulatory Continuous Drip Method in the Treatment of Peptic Ulcer, Am. J. Digest. Dis. *22*:67 (Mar.) 1955.

†Mg trisilicate 3.5 gr.; Ca carbonate 2.0 gr.; Mg oxide 2.0 gr.; Mg carbonate 0.5 gr.

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Water and Health

Clean Water Means Better Health, Candau, M.G. (Director General of *WHO Newsletter*). Water was the theme for World Health Day, April 7. In 1937 a breakdown in water purification near London resulted in a typhoid epidemic. Marseilles had 127 typhoid deaths in 1943. An estimated 22 per cent of deaths in Mexico are attributable to water-borne diseases.

When Water Becomes Dangerous, Chassagne, P. (Chef de Service a l'Institut National d'Hygiene, Paris). Quick review of water-borne diseases and a note on safe sources of water and the methods of purification of water.

Fresh Water from Salt Seas, Krul, W. F. J. M. (Director of Government Institute for Water Supply, the Hague, Holland). Distillation costs \$3 or \$4 per 1000 gallons. (Pacific Gas & Electric Co. estimates \$1.96 per 1000 gallons.) Vapor compression systems are slightly more economical. Solar stills need four square feet for a gallon a day, and cost in large plants is estimated at \$3 per 1000 gallons. Electrodialysis through semipermeable plastic membranes has low energy costs where water is only brackish, but higher for sea water. To reduce salinity from 4000 to 400 parts per million might cost 60 cents per 1000 gallons in a large plant.—R. R. NEWELL, M.D., in *WHO Newsletter*, Vol. 8, Feb.-Mar. 1955.

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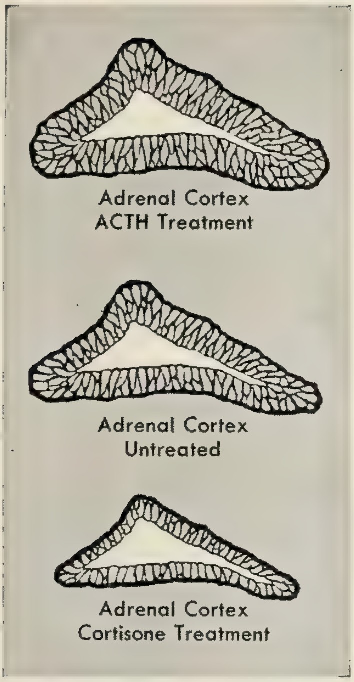

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Kidneys React To Changing Emotions

Three medical researchers have found evidence that the kidneys, which help man adapt to his physical environment, also may help him to cope with the emotional problems of everyday life.

They reported in a recent issue of the *Journal of the American Medical Association* that kidney action is affected by anxiety, fear, anger, and other reactions to daily difficulties.

The kidneys maintain a balance of water and salts in the body. In some illnesses the kidneys "work overtime" to keep the necessary balance. Now physicians are learning that the kidneys are affected by everyday crises as well as disease crises.

In 400 tests on five persons leading their normal lives, it appeared that when they needed "increased alertness and readiness for action," the kidneys helped them by damming up reservoirs of water and mineral salts in the body. When the crisis—a job problem, family illness, disapproval of colleagues—was over, the kidneys flushed the extra water and salts from the body.

Drs. William W. Schottstaedt, Oklahoma City; Harold G. Wolff, New York, and Major William J. Grace, now at Fort Knox, Ky., said kidney reaction to emotional warnings in daily living is similar to that in illness. In a pneumonia patient, for instance,

(Continued on Page 28)

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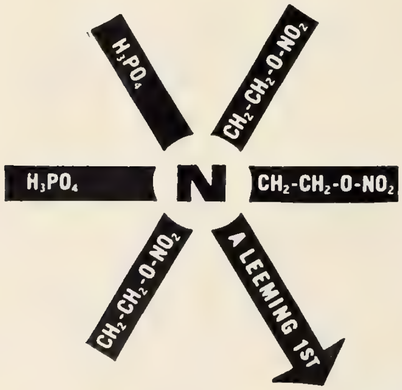

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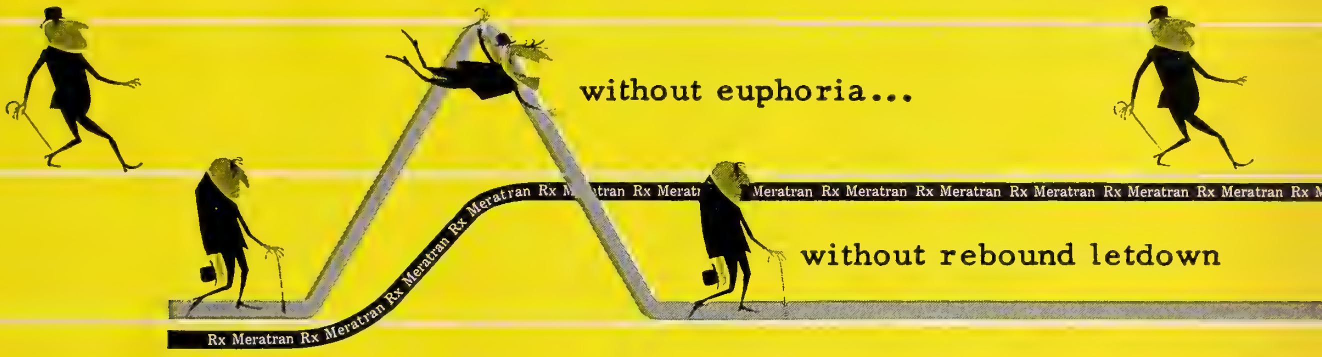
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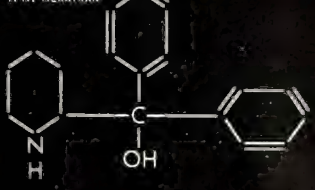

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1. Heath, R. C.: Discussion of paper by Howard D. Fabing (alpha-(2-piperidyl) benzhydrol hydrochloride, a new central stimulant in the treatment of blepharospasm, spasmodic torticollis and narcolepsy) presented before the American Neurological Association, Atlantic City, June 14, 1954. 2. Fabing, H. D., Hawkins, J. R., Moulton, J. A. L.: Clinical studies on alpha-(2-piperidyl) benzhydrol hydrochloride, a new antidepressant drug. Presented before the American Psychiatric Association, St. Louis, Missouri, May 3, 1954. 3. Fabing, H. D.: Alpha-(2-piperidyl) benzhydrol hydrochloride, a new central stimulant, in the treatment of blepharospasm, spasmodic torticollis and narcolepsy; preliminary report (Motion Picture Demonstration), American Neurological Association, June 14, 1954. 4. Himwich, H. E.: Discussion of paper (reference 2), American Psychiatric Association, May 3, 1954.

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Industries Should Make Medical Defense Plans

Industry must prepare itself to be a source of manpower, blood, supplies, and transportation facilities for the community in event of atomic or H-bomb attack, a Philadelphia industrial physician stated recently.

Dr. R. Ralph Bresler, of the Civil Defense Council of Philadelphia, said industry must make plans for "its own preservation" but must be more concerned about helping the community. He outlined a medical civil defense plan for industry in a recent issue of the *Journal of the American Medical Association.*

Except possibly for fire-fighting equipment and men, no outside help should be expected after an enemy attack, he said. Therefore, plant employees must be expected to train as assistants to industrial physicians, to help in medical rescue work. Some intelligent, cooperative workers should even become first-aid instructors so they may teach other employees.

Dr. Bresler said most of today's bomb shelters—and there are not enough of them—were built for atom bombs and would be inadequate if thermonuclear weapons were used. This means that the primary defense measure will be evacuation, on the principle that "it is better to save some of the people than none."

He said "evacuating the inhabitants of even a medium-sized city is a herculean task, one that will tax the ingenuity and resources of even the most capable planners. Yet, in view of the sheer and utter destruction caused by thermonuclear weapons, there seems to be no adequate practicable alternative."

In case of a near miss there would be structural damage and many casualties. This is the situation which needs planning for, he said. A direct hit must be expected to result in almost total mortality and defense plans would be useless.

He said every plant, under its medical director, should have both medical, or first-aid, teams and stretcher teams of five men each. The requirements by plant size would be one team for each 25 employees in a plant of 1 to 99 employees; one team per 50 employees in plants of 100 to 499, and one team per 100 persons in plants of 500 or more.

The medical team would learn first aid; man dispensary and auxiliary first-aid stations; help train stretcher teams in first-aid; learn special plant hazards and first aid to care for injuries from them, and assume responsibility for medical tags, identification, and disposition of injured.

Dr. Bresler recommended that industrial employees should wear "dog-tag" identification with name, address, religion, blood type, and social security number.

(Continued on Page 38)

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1. Rukes, J. M., et al. Metabolism 3:481, 1954.
2. Peterkin, G. A. G.: Brit. M. J. 1:522, 1954.

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Kidneys React To Changing Emotions

(Continued from Page 20)

the kidneys hold extra salts and water in the body during the danger period, and flush them out when the crisis is over, and they are no longer needed.

In the test cases, it was discovered that anxiety, tension, and depression caused retention of sodium and potassium salts and water. Feelings of relaxation, pleasant anticipation, anger, and excitement were accompanied by an increased release of water and mineral salts.

The physicians said the changes caused by the kidneys' action due to differences in eating or drinking were slight compared to changes caused by emotional situations. In normal persons, the changes are important in meeting basic needs. The physician studying these changes must know about the person's life setting and his reaction to it in order to study properly his physical difficulty.

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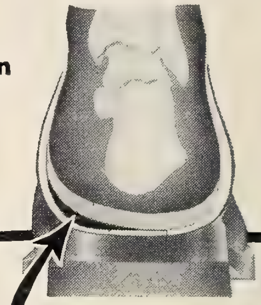

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Vitamin A (Palmitate)	5,000 U.S.P. Units
Vitamin D (Irradiated Ergosterol)	400 U.S.P. Units
Thiamine Hydrochloride, U.S.P.	2 mg.
Riboflavin, U.S.P.	2 mg.
Pyridoxine Hydrochloride, U.S.P.	0.5 mg.
Ascorbic Acid, U.S.P.	37.5 mg.
Niacinamide	20.0 mg.
Calcium Pantothenate	3.0 mg.
Cobalt (from Cobaltous Sulfate)	0.033 mg.
Copper (from Cupric Sulfate)	0.33 mg.
Iodine (from Potassium Iodide)	0.05 mg.
Manganese (from Manganese Sulfate)	0.33 mg.
Magnesium (from Magnesium Sulfate)	1.0 mg.
Molybdenum (from Sodium Molybdate)	0.07 mg.
Potassium (from Potassium Sulfate)	1.7 mg.
Zinc (from Zinc Sulfate)	0.4 mg.

*Equivalent to 15 gr. Dicalcium Phosphate Dihydrate.

---

[1] Burke, B.S. and Stuart, H.D.: Nutrition requirements during pregnancy and lactation. J.A.M.A. 132:119 (May 8) 1948.

Careless Handling Makes Candy Drugs Dangerous

Carelessness about reading labels and storing medicine out of reach are contributing to an apparent increase in preschool age illnesses and deaths from overdoses of candy flavored medicines.

The warning against mishandling of potentially dangerous drugs was made recently by the American Medical Association's Committee on Toxicology, reported in a recent issue of the *Journal of the American Medical Association.*

Committee Secretary Bernard E. Conley said that among preschool age children, the group in which accidental poisonings is most frequent, "drugs are responsible for 33 per cent of the fatal poisonings." Children's death rates "from the ingestion of poisons are four times higher in the United States than in England, even though over-all death rates for both countries are generally comparable," he said.

Most poisoning accidents are caused by "ignorance, carelessness" and unsafe storage, the report said. Many of these products "that are packaged and flavored to look like candy are in reality potent drugs, some of which can be dangerous with overdoses."

Figures show that since candied aspirin became available over-the-counter in 1948, deaths from aspirin among children under five years old rose 500 per cent above prewar levels. There were 31 deaths of this kind in 1951, compared to a prewar average of six.

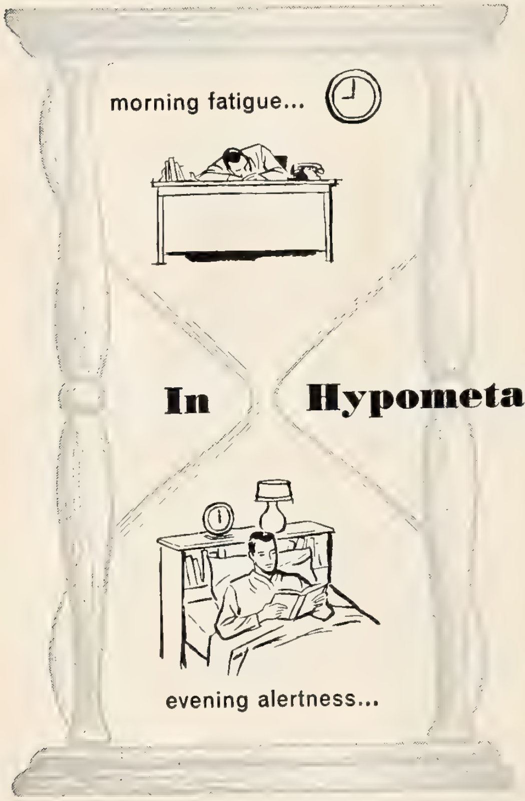
While the aspirin poisoning reports are not "conclusive evidence," they "strongly suggest that flavored aspirin has contributed to an increase in accidental poisoning disproportionate to its availability," the report said.

Another indication of danger for young children is in the unusually high rate of preschool-age poisonings from swallowing oil of wintergreen, commonly used in liniments. Sales of this substance have remained fairly level. So have fatalities from the oil among most age groups. But among preschool age children the mortality rate from oil of wintergreen is 20 to 25 times greater than among the remainder of the population. This may be due partly to its "tempting odor," which resembles that of some chewing gum, candy, and soft drinks, the report said.

Labels that say "keep out of the reach of children," and special safety devices, such as enclosing pills in strong plastic film or putting strong spring caps on containers, might make drugs harder for children to get.

But safety devices are not a basic answer to the problem, the report said. Adults must learn to pay attention to labels and danger signals.

(Continued on Page 33)


morning fatigue...
evening alertness...

When a patient complains of morning fatigue and evening alertness, a diagnosis of hypometabolism should be considered. If, in addition, the patient has two or more of the following symptoms: cold intolerance, brittle nails, dry skin, lack of perspiration or menstrual difficulties, the diagnosis is probable. A slow pulse and a low awakening body temperature make the diagnosis even more secure.

(Watson, B. A.: N. Y. State J. Med. 54: 2049, 1954.)

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prepared exclusively from beef sources . . . provides whole gland medication at its best. Superior uniformity assured by chemical assay and biological test.

Standardized equivalent to Thyroid, U.S.P.; tablets of ½, 1 and 2 grains. Bottles of 100 and 1000.

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Careless Handling Makes Candy Drugs Dangerous

(Continued from Page 32)

Advertising that "states or implies a degree of safety not associated with the drug" is "a basic cause of carelessness and negligence among users," the report said. "Such advertising encourages an easy familiarity" which too often generates carelessness.

"More often than not this carelessness is the result of a cultivated ignorance of the dangerous capacities of a drug rather than an inherent negligence on the part of the user," the committee said. "Recognition of this fact will be a major step toward improving the safe use of common household medicaments."

Physician Warns Against Vacation Driving Danger

Beginning of vacation time brings a warning against long-distance, nonstop driving from a Washington, D. C., physician.

Dr. Carl J. Potthoff said three-fifths of driver defects leading to accidents are fatigue and falling asleep. Writing in a recent issue of *Today's Health* magazine, published by the American Medical Association, Dr. Potthoff said one-fifth of drivers involved in fatal accidents are out-of-state residents but in vacation time the proportion is much higher.

"Drivers who set long mileage schedules for each day usually are fast drivers; speed is the leading cause of traffic accidents and as it increases the injuries are greater in case of accident," he said.

"Accidents sustained far from home cause much-increased difficulty," he said. "Contacts are with strangers: garage service men, physicians, lawyers, police officers. Injuries may require a long stay at the local hospital. It may be necessary to summon distant relatives. Police or civil action may require a return many months later.

"Reasonable driving schedules protect family members who are passengers, precisely the ones we wish most to protect. They provide an excellent example to children, those we wish to teach safety, particularly with respect to driving habits.

"Stopover expenses in small cities are low, perhaps less than the costs at the destination, and automobile expenses are lower when driving is leisurely.

"For safety's sake, vacation can be regarded as starting with the trip, rather than at the destination. A stopover at a point of historic interest or of beauty can be found usually. . . . Some vacationers do not set a rigid schedule; with them every hour of driving is a search for the new and unusual rather than an urgent rush."

COLD DRINKS

When summer drinks bring diarrhea...

Cremosuxidine®

SULFASUXIDINE® SUSPENSION WITH PECTIN AND KAOLIN

MAJOR ADVANTAGES: Has pronounced antibacterial action. Detoxifies and adsorbs intestinal irritants. Soothes the mucosa. Tasty chocolate-mint flavor.

Adult dosage: 1½ to 2 tbsp. six times a day. *Children and infants* in proportion.

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unexcelled for nutrient value... safety... convenience...

in infant feeding

Dextrogen, a most convenient concentrated liquid formula for infants, is made from whole milk modified with dextrins, maltose and dextrose. Fortified with iron and vitamin D, it provides adequate amounts of all necessary nutrients (except vitamin C).

In normal dilution it contains more pyridoxine (vitamin B_6) than does human milk.

Requires no stirring or whipping, no bothersome measuring equipment . . . merely add water, and the formula is ready.

Dextrogen feedings are most economical, too, costing less than a penny per ounce in normal dilution.

- Contains (in normal dilution) about 50 per cent more protein than does human milk.
- Zero tension curds assure ease of digestion.
- Fat content almost one-third lower than that of human milk. Uniform dispersion by homogenization provides ease of fat digestion.
- Less allergenic.
- Mixed carbohydrates allow spaced absorption and easy assimilation.
- Constancy, uniformity, and optimal safety secured by strict laboratory control.

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The nutritional statements made in this advertisement have been reviewed and found consistent with current medical opinion by the Council on Foods and Nutrition of the American Medical Association.

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Industries Should Make Medical Defense Plans

(Continued from Page 24)

The stretcher team would learn first aid with emphasis on moving injured persons, and transport the injured to first-aid stations or to loading points for vehicle evacuation.

He also said an industry should be equipped with at least a standard radio to learn just where the bomb hit so clear emergency roads could be picked out.

Medical supplies listed by Dr. Bresler would cost about $378 for a plant with 100 employees, and about $1,800 for a 1,500-man plant.

He suggested that plants too small to establish a defense program might join forces with neighboring small companies. (Further information for small plants can be obtained from Division 5, Civil Defense Council, Room 602, City Hall Annex, Philadelphia.)

Sick Lakes

The Alpine Lakes, O. Jaag, *WHO Newsletter*, Vol. 8(5):3, May 1955. (Professor Jaag is Director of Swiss Federal Water Supply Institute.) The lakes at the foot of the Alps where the glaciers retreated 20,000 years ago used to be clear and full of food fish. With progressive pollution, chemical and sewage, the lakes have "sickened." The worst event has been the repeated mass development of an alga, *Oscilator rubescens*. Such growths use up the oxygen in the water, organic material putrifies, fish die, water stinks. These changes have ruined some lakes and threaten all of them. They can be rescued only by proper treatment of sewage, etc., before it is dumped into them.

R. R. Newell, M.D.

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Without Atropine Side Effects

Each tablet contains 50 mg.
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phenobarbital.
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Trasentine® hydrochloride
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2/2061M

C I B A *Summit, N. J.*

Hypnosis Aids Recovery of Burn Victims

Hypnosis may help badly burned men get well by improving both their morale and their appetite.

Hypnotic suggestion rehabilitated patients so depressed by their burns that they refused to eat or exercise, five Dallas researchers reported in a recent issue of the *Journal of the American Medical Association*. They said theirs was the first report of using hypnosis to help burn victims.

Severe skin burns can cause personality reactions which delay healing. Victims lose their appetite, refuse to eat, call constantly for pain killers, and cannot do essential exercises because of pain.

Hypnosis helped six of eight burn patients with these symptoms to develop enormous appetites, so that instead of requiring force feeding, they gorged themselves back to health. It made pain disappear so that they could exercise their burned limbs and walk again. In such cases the patient still may be unwell but movement helps him to regain "hope that he again will become an independent person and confidence that he eventually will recover from his injury."

One 24-year-old patient, half his body surface burned, was on the downgrade because of his refusal to eat and the resulting weakness, infection, muscle deterioration and graft failure. His weight had dropped from 130 to 90 pounds. He developed an enormous appetite within days after hypnotic treatment began. Consuming 4,200 calories a day, he gained 30 pounds in six weeks. Three months after hypnosis began, he was walking painlessly and left the hospital with nearly all wounds healed.

The hypnotic treatment was almost too successful in some cases. One patient, unable to exercise his burned hands because of pain, became so diligent under hypnotic suggestion that he did his exercise even while he slept. Another who needed a high protein diet was hypnotically stimulated into a craving for tuna fish, a food he seldom ate prior to his injury.

It took skilled medical specialists about an hour and a half to put a patient into a first trance. After that, the suggestions were repeated almost daily during successive trances, which took only a few minutes. In a few days, patients' appetites and feelings of pain were being controlled by suggestions made during the trances. However, some could not be helped because they were resistant to hypnotic suggestion.

The hypnotic burn treatment was carried out by Harold B. Crasilneck, Ph.D., Jerry A. Stirman, M.D., Ben J. Wilson, M.D., Erasmus J. McCranie, M.D., and Morris J. Fogelman, M.D., all of Dallas.

Rent an office, buy or sell equipment, find an associate. Read and advertise in CALIFORNIA MEDICINE'S Classified Advertising section.

FOR APPETITE SUPPRESSION

WITHOUT THE "**BLACK MOOD**" FEELING OF DEPRIVATION

Rauwidrine—containing 1 mg. Rauwiloid® (alseroxylon fraction) and 5 mg. amphetamine in a single tablet—curtails psychogenic overeating without a feeling of deprivation. Especially welcomed by the depressed and obese patient who needs amphetamine, but who suffers jitteriness, cardiac pounding, and insomnia from amphetamine alone. Safe for the hypertensive, too.

Dosage: For obesity, 1 to 2 tablets 30 to 60 minutes before each meal.

Rauwidrine®

Riker LABORATORIES, INC., Los Angeles

FOR MOOD ELEVATION Rauwidrine provides the needed "lift." Safe for the hypertensive.

No matter how you measure it, AUREOMYCIN can claim a distinguished record: in terms of published clinical trials—there are more than 7,000; as for actual doses administered—the figure is more than a *billion.*

But the most significant fact is told by time. For seven years, AUREOMYCIN has been in daily use, repeatedly employed by thousands of physicians throughout the world. Again and again, it has proved to be a reliable broad-spectrum antibiotic; well-tolerated, prompt in action, effective in controlling many kinds of infection.

A CONVENIENT DOSAGE FORM FOR EVERY MEDICAL REQUIREMENT

Seven

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MYCIN*

HYDROCHLORIDE
Chlortetracycline HCl

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LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY Pearl River, New York

*TRADE-MARK

Dates of Regional Legislative Conferences

Dates have been set for a series of six regional legislative conferences which the Board of Trustees authorized the A.M.A. Committee on Legislation to sponsor in the fall. Purpose of the meetings is to discuss in detail the many important medical bills pending in Congress.

The fall meetings will be held in six different cities with attendance being made up of representatives from surrounding states. The dates, meeting places, and chairmen for each follow:

September 24, San Francisco, Dr. J. Lafe Ludwig, chairman; October 8, Chicago, Dr. Harlan English, chairman; October 15, Omaha, Dr. Joseph D. McCarthy, and Dr. McKinnie Phelps, co-chairmen; October 29, New York, Dr. David B. Allman, chairman; November 6, Atlanta, Dr. Reuben Chrisman and Dr. Clark Bailey, co-chairmen, and November 19, Dallas, Dr. John McDonald, chairman.

—A.M.A. Secretary's Letter

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Volume 83 JULY 1955 Number 1

What's New and What's True of What's New In Dermatology

HERBERT RATTNER, *M.D.*, Chicago

SOME WEEKS AGO I was called on the telephone by a man who said in a tone that was at once demanding and irritating that he wanted to know—"Is there anything new in acne?" For some unaccountable reason, my wits did not completely desert me, as is usual in such situations, and I asked in reply, "New since when?" I must confess to feeling a warm glow at his discomfiture and loss of words. However, when later I began to sort notes for the discussion today, I, too, felt something of that man's discomfiture, for I found it most difficult to establish a base line from which to measure that which is new.

Is it news that dermatologists are becoming more and more aware of a possible association between certain fungous infections and "unrelated" systemic diseases or abnormalities? There have been reports of persons with widespread cutaneous infection due to trichophyton purpureum who were also found to have malignant lymphoblastomatous disease. Case records of several patients with chronic onychomycosis due to trichophyton purpureum reveal that in all instances the glucose tolerance curves were consistently lower than normal. There was recorded recently a case of candidiasis in a child with a disease of the pancreas. Although the number of such cases is small, there is a feeling, nevertheless, that the association might be something more than pure coincidence. Is it news that chloroquine—which is so useful for the treatment of discoid lupus erythematosus—has also been used successfully for other diseases that are often stubbornly resistant to treatment — a heterogenous group consisting of chronic lichen planus, warts, recalcitrant eruption of palms and soles, sarcoidosis, idiopathic hemorrhagic sarcoma of Kaposi, cheilitis, localized scleroderma and lichen sclerosis et atrophicans in the erythematous stage.[1] In these conditions the treatment is altogether empiric and there is still no established optimum dosage of the drug prescribed for any of these diseases. But, as in discoid lupus erythematosus, the usual procedure is to prescribe 100 mg. of chloroquine three times daily for the first week, twice daily in the second week and once daily thereafter as necessary—with precautionary examinations periodically to guard against damage especially to the hematopoietic system. We, at Northwestern University, have not yet encountered a case in which chloroquine has caused the hair to become bleached—a side effect that has been noted in the literature. Plaquenil, a new type of chloroquine drug which has not been used extensively, is said to be less toxic than chloroquine, but also less effective.

STEROID THERAPY

Steroid therapy continues to make news in dermatology. Systemically administered preparations of newly developed products such as metacortandralone, metacortandracin, aldosterone and haloge-

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Address of guest speaker, presented before the Section on Dermatology and Syphilology at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

nated cortisone have not been studied sufficiently to evaluate their effect upon cutaneous diseases. The topical use of a halogenated preparation, fluorohydrocortisone, is being studied with interest because of its greater potency. Fluorohydrocortisone ointment is about five times more potent than the hydrocortisone acetate or free alcohol ointments. However, unlike the other hydrocortisone ointments, fluorohydrocortisone apparently may produce systemic side effects. The brochure of one drug house warns that sodium retention with edema has been reported in rare instances. One wonders, therefore, whether the favorable results reported from fluorohydrocortisone ointment may not be due in part to a systemic effect upon the patient.

One of the most interesting developments has been the tendency of dermatologists to rely more on ointment mixtures containing hydrocortisone than upon hydrocortisone alone. To increase their therapeutic successes, dermatologists are experimenting with and compounding mixtures of hydrocortisone with such time-tested drugs as tars, sulfur, salicylic acid, antibiotics and reducing agents. This practice will undoubtedly become more extensive when hydrocortisone becomes less costly. The tendency is increasing, also, among dermatologists to prescribe less of the proprietary preparations and more of their own prescriptions containing drugs in the proportions and in vehicles of their own choosing, for experience has taught the importance of selecting just the specific ointment base for individual conditions. These developments were inevitable and much worth while, as hydrocortisone is probably the best single antieczematous agent available for topical use. It constitutes a most valuable aid when used with skill and restraint.

CHELATION

Chelating agents have been known for some time, but the art of chelation and its application to dermatology is a new and interesting development, and may prove to have practical value. Chele means "claw," and chelating agents act by grasping, engulfing or encircling various central atoms or ions, particularly metallic ions, so that the latter can no longer be precipitated out by ordinary precipitating agents. These varied agents have different affinities for different metals; one that will engulf lead will not grasp chrome. Chelates have been used in industry to recover trace metals from foods and beverages, and in analyzing solutions. They have been used to decalcify bone, to reduce hypercalcemia, in the treatment of lead poisoning and of urinary calculi; and they have been incorporated in some shampoos because of their ability to engulf the calcium and magnesium ions of hard water, thus constituting what is, in effect, a water softener. They are also being incorporated into ointments for the prevention of metal dermatitis, such as that occurring on the ear lobes from metallic jewelry. At Northwestern, where we are at present engaged in a study of dermatitis among workers in the lithographic industry, we have been searching for a chelate that would attach onto the chromate ion which is believed to be the offending agent in dermatitis of this type; but so far to no avail, although one such agent is reported to have been used with success in the treatment of chromic ulcers—produced, it is thought, by the trivalent positive chrome ion. Colored water-soluble chelating agents lately have been introduced for employment in histochemistry,[3] some, which are selectively bound only where metal is present, and others, which impregnate the tissue as a whole but change color only in the presence of the metal. The study of the metabolism and distribution of metals may thus be enhanced and may conceivably benefit dermatology.

TRANQUILIZING DRUGS

The so-called tranquilizing drugs, chlorpromazine and the rauwolfia group of drugs, have, of course, been applied in dermatology with results that are difficult to assess. Despite the occasional reports of reactions from chlorpromazine, particularly hepatitis, and the suspicion, too, that it may prove to be photosensitizing, the drugs are being used with ever increasing frequency and seem to be replacing the barbiturates. They appear to be more effective in hospital practice than in ambulatory patients, and the drugs benefit the patient generally and his cutaneous lesions indirectly. Nevertheless, one nationally prominent newspaper health columnist recently stated that he had observed refractory psoriasis disappear from a patient who had been given one of the tranquilizing drugs for another disease. Again was hope rekindled among long suffering but ever hopeful psoriatic patients. We regret that our patients with psoriasis to whom the drug was administered were not so fortunate. Some physicians are advising the use of an antihistamine drug along with the tranquilizer in order to reduce the side-reactions of rhinitis. The drugs are being used effectively to cure the mental reactions that sometimes occur from steroid therapy.

BALDNESS

Along the same line, two new treatments for common baldness have recently been introduced. One treatment—which was reported in a letter to the editors of the British Medical Journal and is now being exploited by an American hair-growing institute—consists of the use of roniacol, a derivative of niacin. It seems that the drug was administered to patients for the treatment of intermittent claudication and two of the patients "proudly and happily" volunteered the information that the tablets had grown a good crop of hair on their bald pates. Hair grew after taking 250 tablets, and an incidental finding was the observation that scalp hairs appeared on heads that were previously barren. It would seem that with the amount of niacin consumed in this country, one would expect bald heads to be the unusual rather than the commonplace. The Glasgow physician who wrote the letter confessed that he had not personally had the time to take the tablets to cure his own advanced baldness.

The other treatment is being exploited by a prominent drug house. The cover of the advertising brochure proclaims Premarin Lotion for the treatment of acne vulgaris, seborrhea and premature alopecia. The text inside the covers states that one observer "studied 75 patients with various skin and nail disturbances which appeared to be related to a deficiency of estrogen." From this series, the case histories of six patients, three males and three females, were selected to illustrate scalp lesions responding to topical estrogen therapy: "Within three to six weeks alleviation of symptoms and reduced hair loss were noted." Nowhere in the advertisement does it state that Premarin Lotion grows hair and indeed a detail man from the company was quick to make that plain to me. But it does "control hair fall," they say. The implication is there. The tune is an old familiar one, the source a surprising one.

LEG ULCERS

Several new suggestions have been made for the treatment of leg ulcers. Saphenous neurectomy has been recommended for selected cases of painful leg ulcers. The relief from pain is said to be immediate and often dramatic. Robinson,[6] employing more conservative measures, applied powdered antibiotic drugs to leg ulcers, particularly chloramphenicol, bacitracin and bacitracin-polymyxin B sulfate. Aside from the development of a few cases of dermatitis, the results were more than satisfactory—a conclusion that carries considerable significance, because Robinson in many years of experience had employed at one time or another almost every treatment-method suggested: Unnas paste bandages, adhesive dressings, scarlet red ointment, chloresium, vitamin A and D ointment, ultra violet light, dry heat, x-ray therapy, ammoniated mercury, gentian violet, panthenol ointment, aluminum subacetate and boric acid solutions, occlusion, ligation, vein stripping, streptokinase-streptodornase, trypsin and antibiotic ointments. Robinson considered the result from antibiotic powder in his 72 ambulatory patients to be far superior to any obtained with the above mentioned treatments. However, Spier and Cliffton also obtained excellent results by first applying a combination of antibiotic drug and plasminogen to remove debris and infected material and then applying hyaluronidase.

A new and even more conservative method of treatment employing gelatin sponge powder has in its favor not only a high degree of efficiency, but also the factor of simplicity. Milberg and Tolmach,[4] treated a group of 106 ambulatory patients, 64 women and 42 men, all of whom had received other standard methods of therapy without success. The majority had varicose or post-thrombophlebitic ulcers, ulcers associated with sickle cell anemia, bedsore, elephantiasis or ulcers from causes unknown, all of which were treated in the same manner.

The ulcers were packed with sterile absorbable gelatin sponge powder, covered with dry gauze and then wrapped in an elastic bandage or elastoplast dressing. Soothing pastes were applied to any areas of dermatitis that were present and, if infection was present, systemic antibiotic agents were used for several days before treatment. The dressings were changed at weekly intervals. Where the ulcer was huge or where more than one ulcer was present, comparative studies were made against silver leaf foil, an antibiotic ointment, aloe vera leaf and crystalline trypsin. In all cases, the gelatin sponge powder was found to be more effective in stimulating the formation of granulation tissue with resultant early healing of the ulcers.

Still another method especially for hypostatic dermatitis is that recommended by Reisch and Combes,[5] which consists of a legging made of sponge rubber—legging rather than boot, for it does not encase any of the foot. The leggings cannot be purchased from stock, they must be made to measure for each patient. Reisch and Combes gave specific instructions for the making of such a legging, which has the advantages of uniform pressure from ankle to knee and of giving superficial massage as the patient walks. Also, it permits any sort of adjuvant dressings to be used, as the legging is easily removed and reapplied.

The question as to whether or not an ulcer has undergone cancerous degeneration, always in the forefront, has been made somewhat easier by Ronchese[7] and co-workers, who employed the Wood's light for detecting carcinomatous tissues in ulcers. The method was described some years ago in both animal and human tissues, but Ronchese's report was enhanced by the inclusion—for the first time—of striking colored photographs which show the vivid "live coal" reddish orange fluorescence of the squamous carcinoma tissue. To obtain the color, the surface of the lesion must be necrotic. Only the superficial part of the lesion gives the color. Basal cell epitheliomas (even badly ulcerated), carbuncles, benign leg ulcers, gummas and even granuloma fungoides ulcers do not fluoresce with the "live coal" color. Roentgen therapy reduced the fluorescence temporarily. The Wood's light will not be expected to exclude histological examination in order to establish a diagnosis, but it does offer help in selection of the most suitable area for biopsy.

TRYPSIN

Trypsin,[2] in the form of a suspension of crystalline trypsin in sesame oil (Parenzyme) when injected intramuscularly, was said to bring about good results in a variety of inflammatory diseases, notably thrombophlebitis. It was used also for psoriasis, herpes zoster, atopic eczema, deep pyoderma and abscesses in various locations. About one-third of the patients complained of pain and induration at the site of injection. We, at Cook County Hospital, were about to undertake a study of trypsin in cutaneous diseases, but were advised by a reliable observer that the results would not warrant the treatment, for reactions were not inconsiderable.

Herpes zoster was reported to be favorably influenced by treatment with a new drug—thiastigmine.[8] The results were uniformly good in 23 cases. The drug combines thiamine chloride and neostigmine methylsulfate, each of which had previously been used alone in herpes zoster with indifferent results. The combination is said to have a synergistic effect which is postulated on the physiologic action of both thiamine and neostigmine as cholinesterase inhibitors, permitting greater liberation of acetylcholine.

NOTES

There is an apparent increase in the incidence of pretibial myxedema since hyperthyroidism is being treated with radioactive iodine. One case observed at Cook County Hospital is responding satisfactorily to treatment with Diamox,® a new diuretic being used with success for the treatment of exophthalmus.

* * *

The administration of radioactive iodine to reduce thyroid activity permits the utilization of smaller doses of corticosteroids in acute disseminated lupus erythematosus.

* * *

There is said to be a world-wide epidemic of plantar warts at present, affecting girls in the 10 to 12-year age group and boys to a lesser extent. For some unaccountable reason, January, February and March were the months of highest incidence.

* * *

Dermatologists are learning to recognize that dermatomyositis, like lupus erythematosus, may occur without manifestations in the skin. It is actually multiple myositis and is diagnosed more reliably by an electromyogram than by muscle-biopsy.

* * *

Myocostatin, intended for the systemic treatment of moniliasis is reported to effect excellent results in oral thrush. It is used as a mouth rinse.

* * *

Whether from parental pressure or from bitter experience, it is difficult to determine, but there seems to be a swing back to early treatment of hemangiomas from the former advice of pediatricians to "wait and see."

* * *

In a study of a new complement-fixation test for monilia, Rein and co-workers found that approximately 15 per cent of all persons tested gave positive reactions; approximately 80 per cent of patients with cutaneous moniliasis gave positive reactions; and prolonged administration of tetracycline therapy to patients giving negative reactions failed to change these reactions.

* * *

Chemical analysis of brittle nails failed to reveal any decrease in mineral content—results which confirm the long held view of dermatologists that there is no basis for the administration of calcium to patients with brittle nails.

* * *

Recent publications of importance and interest include:

Physiology and Biochemistry of the Skin, by Stephen Rothman (University of Chicago Press). The first of its kind in the English language, it is comprehensive, stimulating, interestingly written, new and authoritative—an excellent and important book in every respect.

* * *

The Eczemas, by Loewenthal and collaborators (Williams & Wilkins Co.), also excellent, contains a chapter by Hathausen on theoretical considerations of allergic eczema which will delight the hearts of all dermatologists.

* * *

The Skin, by Arthur Allen (C. V. Mosby Co.), is written by a pathologist and thus presents the subject with an approach that is fresh and somewhat different than usual. Treatment is not discussed nor is there emphasis on minutiae. Several things in the book are not only controversial but in error. Withal, however, the material is stimulating, current and effectively presented. The excellence of the illustrations alone is sufficient reason to own the book despite its large size and high cost.

* * *

Classics in Clinical Dermatology, by Shelley & Crissey (Charles C. Thomas), affords delightful leisure-type reading. It reproduces the original descriptions of the important dermatologic conditions known today. Foreign originals are translated into English. And it contains also interesting background material of each of the authors. The book may well become a classic in itself.

* * *

The Clinical Significance of Disturbances in the Delivery of Sweat, by Sulzberger and Herrman (Charles C. Thomas), consists essentially of material presented by these two authors at the American Academy of Dermatology and Syphilology a few years back. All phases of the subject are reviewed thoroughly and in a way to interest students of the subject.

* * *

Handbook of Tropical Dermatology, in two large volumes edited by Simon (Elsevier Publishing Co.), contains in great detail not only diseases peculiar to the tropics, but also discusses the behavior in the tropics of diseases common to the more temperate zones. There is a chapter on historical developments and terminology that is absorbing. The two volumes are well worth owning.

* * *

Two small books on topical therapy, one by Lerners (*Dermatologic Medications,* Year Book Publishers) and the other by Frazier and Blank (*A Formulary for External Therapy of the Skin,* Charles C. Thomas) serve a useful purpose. The Lerner's book is the more practical of the two and contains much material that is new. The Frazier-Blank book discusses the basic phases of the subject in a manner that is thought-provoking and sometimes controversial, but the formulas recommended are often impractical for use except in institutions.

* * *

A small book by Canizares on *Modern Diagnosis and Treatment of the Minor Venereal Diseases* (Charles C. Thomas), is plainly written and up to date. It should be helpful both to the students and to the teacher of dermatology.

* * *

Diseases of the Skin, eighth edition, by Ormsby & Montgomery (Lea & Febiger), still maintains its position as the most important reference book in dermatology, even though it contains some material that is antiquated.

* * *

The fourth edition of *Diseases of the Skin,* by Andrews (Saunders), has been improved considerably by changes in much of the material in physical methods, particularly radiation. Apparently students prefer this text over others.

* * *

Viral and Rickettsial Diseases of Skin, Eye and Mucous Membranes of Man, by Harvey Blank and Geoffrey Rake (Little, Brown & Co.), the first complete and detailed book to be written on the subject. It is an informative reference work, plainly written and represents a skillful combination of clinical experience and scientific information.

* * *

MacKenna's second book on *Modern Trends in Dermatology* (Hoeber) maintains the excellent pace of the first edition. It is modern, advanced, well written and adult fare in all respects.

* * *

Finally there is the new look of the *Archives of Dermatology*—a new title, new cover and new format. It remains only for new low printing prices to take effect in order to make the use of colored illustrations practical.

104 S. Michigan Boulevard, Chicago 3, Illinois.

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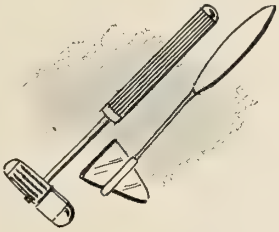

Practical Management of the Stone-Former

HENRY M. WEYRAUCH, *M.D.*, and
MILTON L. ROSENBERG, *M.D.*, San Francisco

• ***The recurrence or growth of urinary calculi may be prevented by a plan of management suited to the stone-forming tendency of the patient.***

SINCE SURGICAL REMOVAL of urinary calculi is directed against the effect of the disease and usually leaves the cause unaltered, recurrence may be anticipated in from 25 to 40 per cent of all cases.[8] It is imperative, therefore, to use what measures are possible to alter the obscure processes that lead to formation of calculi.

Since any plan of intelligent management is based on the composition of the calculus, the first essential is to know the particular kind of stone formed in each case. Usually if there is recurrence the kind of calculus formed is the same as the first, and if conditions can be changed to alter the urinary milieu which initially led to formation of a calculus, many recurrences will be prevented.

As it provides the most accurate data regarding the composition of calculi, chemical analysis should be carried out on all stones removed or passed. It is important to impress patients with the necessity of recovering calculi that are passed spontaneously. Simple qualitative chemical analysis usually provides all the information needed. More complicated quantitative analyses give little additional information of value as concerns treatment. When calculi cannot be obtained, something concerning their nature may be predicted by the radiographic appearance or by such contributory evidence as the pH of the urine or the type of any complicating infection.

For the purposes of clinical diagnosis and management it is convenient to divide calculi into two large groups, those that are relatively radiopaque, and those that are relatively nonopaque. There are two main types of radiopaque calculi: (1) primary calcium calculi—those usually combined with oxalates, phosphates or carbonates; and (2) secondary magnesium ammonium phosphate stones which form in the presence of strongly alkaline urine. Three types of calculi are relatively nonopaque: the more common uric acid stones and cystine stones, and the extremely rare xanthine stones.

The initial step in the study of any patient with calculus is to determine whether he has any metabolic disease or predisposing factor which might lead to stone formation. Since the diagnosis of metabolic disease is often difficult, there is a tendency to subject patients to innumerable, time-consuming, expensive laboratory tests, many of which have no practical application. In the authors' plan of observation only the few laboratory procedures that are essential are used.

As concerns radiopaque calculi, there is usually little difficulty in differentiating primary calcium calculi from the magnesium ammonium phosphate group. The former are usually discrete calculi which form in neutral or slightly alkaline urine in the absence of infection. The latter form in strongly alkaline urine and are frequently caused by stasis and alkaline infection with urea-splitting organisms or by high alkali ingestion. The phosphate calculi may be branched and of stag-horn conformation, similar in appearance to some cystine calculi, which also may be slightly radiopaque.

The most important chemical test in the study of patients with primary calcium calculi is the quantitative determination of urinary calcium. This is the one test which gives indication of one or more of the causes of hypercalcuria: (1) Hyperparathyroidism; (2) excessive calcium intake; (3) excessive vitamin D intake; (4) immobilization; (5) renal tubular acidosis, from pyelonephritis, nephrocalcinosis, or congenital tubular defect; (6) sarcoidosis; (7) idiopathic.

As a pilot test, quantitative calcium, phosphorus and creatinine determinations are made of urine collected over a 24-hour period, without varying the patient's usual diet or fluid intake. Although these determinations are of no diagnostic significance as concerns metabolic disorder, when repeated to allow for variations in the patient's diet, they provide useful background information. In the first phase, information is gained of the normal 24-hour creatinine output for the particular individual. Regardless of food ingested, the 24-hour creatinine output does not vary more than 200 mg. (normal 1 to 2 gm). This serves as a check that the entire 24-hour urinary output is obtained at subsequent

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Submitted January 31, 1955.

TABLE 1.—*Menu for low calcium test diet (to be taken for 4 consecutive days)*

Composition of Meal Pattern: Calcium 175 mg., Phosphorus 894 mg., Calories 2400.

Breakfast:	
Orange juice*	½ cup (scant)
Cooked Farina	½ cup
with sugar	2 teaspoons
Soda crackers	3 squares
Butter	3 pats (6 teaspoons)
Bacon	3 slices
Sugar	3 teaspoons
Coffee	
Dinner:	
Plainly cooked beef†	2½ ounces
Boiled or baked potato	¼ cup
Raw or canned tomato	1 small or ½ cup canned
Soda crackers	3 squares
Butter	3 pats (6 teaspoons)
Applesauce with sugar*	½ cup
Sugar	3 teaspoons
Tea	
Supper:	
Plainly cooked lamb†	2½ ounces
Rice	1 scant cup
Corn	1 large ear or ½ cup frozen
Soda crackers	3 squares
Butter	3 pats (6 teaspoons)
Banana*	1 small
Sugar	3 teaspoons
Tea	

This diet is to be taken for three consecutive days prior to collecting a 24-hour specimen of urine and the day of collecting the urine. The first thing on the morning following three days of diet, void and discard urine. Thereafter collect *all* of urine passed during the next 24 hours. Collect in clean 1 gallon glass jug. This includes *all* urine passed up to and including first urine passed the morning after the day of starting the collection.

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*Bananas, oranges, peaches, applesauce or watermelon may be used.
†Beef, lamb, veal, or chicken may be used.

determinations. Secondly, this initial study gives indication of the amount of calcium and phosphorus a patient excretes on his usual diet.

In hyperparathyroidism, calcium excretion exceeds intake, even on a low-calcium diet. To diagnose or rule out this condition, the patient is given a diet of 175 mg. of calcium daily (Table 1) for four days; the urine is collected during the last 24-hour period and a quantitative calcium determination made.[4] (We are attempting to develop a simple office test for this determination. In our experience the Sulkowitch test is not sufficiently sensitive for quantitative estimates.) If the 24-hour specimen, with the patient on the test diet, contains more than 200 mg. of calcium, the diagnosis of hyperparathyroidism is likely. The serum calcium and phosphorus should also be measured to give additional confirmatory evidence. If the amount of calcium in the urine is only slightly excessive the concentration in the serum may be normal. However, in advanced cases of hyperparathyroidism, the serum changes will be quite evident.

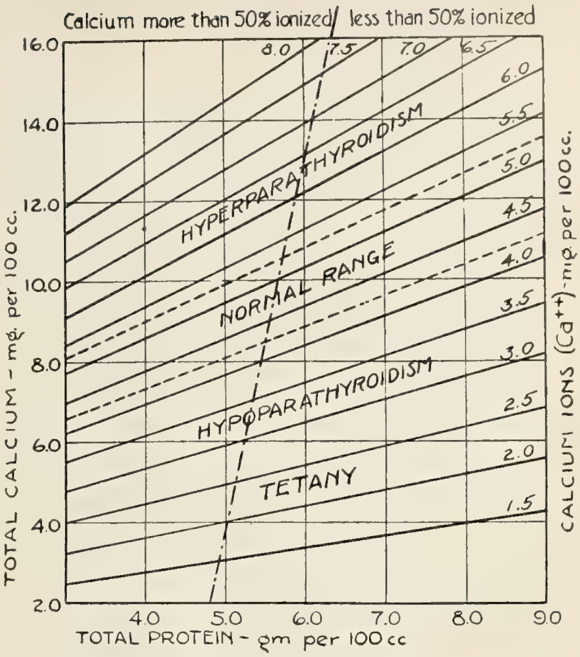

Chart 1.—Urinary calcium excretion after 175 mg. diet for three days. Preoperatively, 570 mg. were excreted in 24 hours. After operation there was a normal excretion of 154 mg. in 24 hours.

The normal value for serum calcium is 9 mg. to 11 mg. per 100 ml. and for serum phosphorus 3 mg. to 5 mg. per 100 ml. In hyperparathyroidism, while serum calcium is increased and serum inorganic phosphorus decreased, the urinary output of both calcium and phosphorus is increased. The mode of action is not entirely clear, but it has been found in animals that injection of parathyroid hormone causes hyperphosphaturia, probably by decreasing the renal threshold for phosphate excretion.[1] Apparently the sequence of events is as follows: First hyperphosphaturia occurs, producing hypophosphatemia; then, since there is a constant ratio between serum phosphorus and calcium, a decreased serum phosphorus causes hypercalcemia, which in turn leads to hypercalcuria. An additional factor is an increased amount of calcium in the serum and urine caused by increased osteoclastic activity under excess parathyroid hormonal stimulus.

Since the serum calcium determination represents total serum calcium and since the diagnosis of hyperparathyroidism depends solely on the amount of ionized calcium, whenever the diagnosis is doubtful the amount of ionized calcium is computed by determining the amount of serum protein, to which nonionized protein is bound. A low-serum protein (normal is 6 to 8 gm. per 100 ml.) indicates that a borderline total serum calcium contains a more significant amount of ionized calcium. When the total serum calcium and the serum protein are calculated,

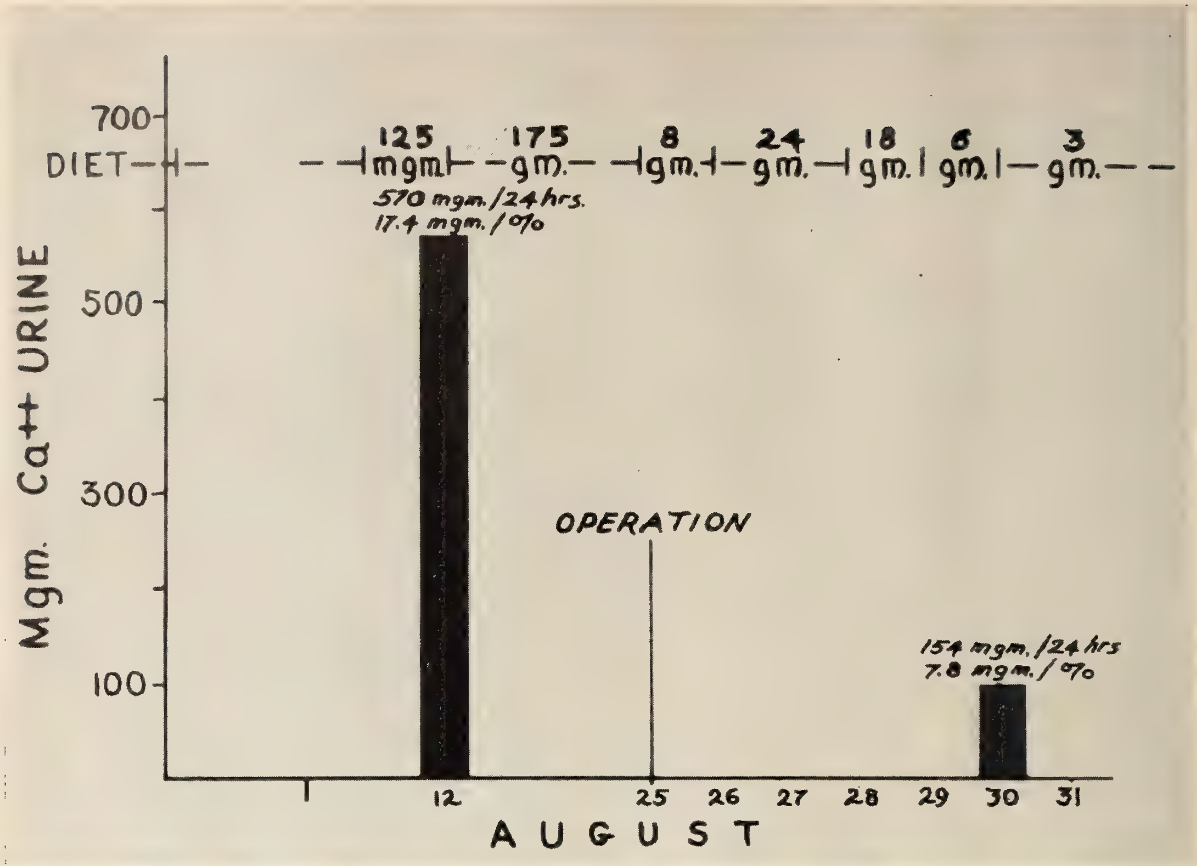

Chart 2.—Serum studies showing initially elevated calcium and decreased phosphorus with prompt return to normal after partial parathyroidectomy, when supplementary calcium feedings were discontinued.

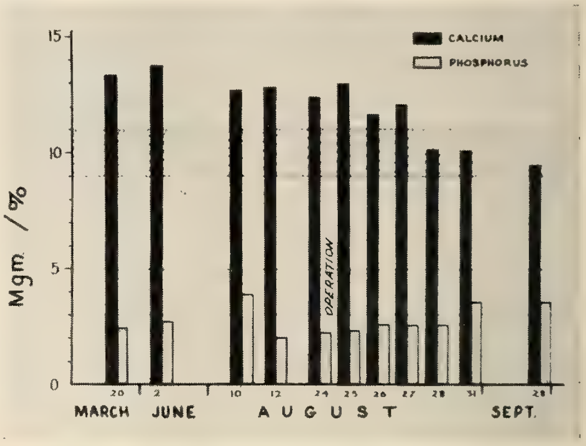

Chart 3.—For calculation of ionized fraction of calcium when total serum calcium and protein are known (McLean and Hastings).

the ionized fraction may be computed from a chart (Chart 1).[6]

The serum alkaline phosphatase is not diagnostic of parathyroid disease and indicates only the amount of osteoblastic activity. Likewise, the urinary phosphate excretion is useless in the diagnosis of hyperparathyroidism, although it serves as an important guide in the prevention of calculi.[7] Most renal changes in metabolic disease are secondary to hypercalcuria, and the urinary phosphate excretion is not consistently abnormal. Moreover, in the idiopathic stone-former, the amount of phosphate excreted depends almost entirely on the amount ingested.

Although hyperparathyroidism is the cause in fewer than 5 per cent of cases of calcium calculi, it is extremely important to determine whether or not this condition is present, for, if it is, permanent cure is attained by partial parathyroidectomy.

Hyperparathyroidism is so insidious that it frequently escapes detection even though the patient may be under medical observation, as for urolithiasis. A typical case is that of a 59-year-old housewife who after passing innumerable calculi over a period of four years, was finally admitted to the hospital for study. At the time of entry, x-ray studies revealed calculi in both kidneys. On the four-day regulated calcium diet, the patient's urinary calcium excretion was abnormally high (Chart 2). Studies of the serum revealed hypercalcemia and hypophosphatemia (Chart 3). The diagnosis was hyperparathyroidism.

Even though no calculi are recovered for chemical analysis, the careful study of the individual patient, including the history, physical examination, urine examination, x-rays and cystoscopic studies, supplemented by the special chemical tests made to rule out hyperparathyroidism, is usually adequate to differentiate between calcium and magnesium ammonium phosphate calculi and also to pin-point any evident etiologic factor which might cause hypercalcuria.

Excessive calcium intake may occur with the ingestion of large quantities of milk, cream and alkalis, as in the treatment of peptic ulcer. Excessive vitamin D intake causes large quantities of calcium to be absorbed from the large intestine, with increased phosphorus and calcium excretion in the urine. This also occurs in acidosis. Forced immobilization of the skeleton, as when patients are in a cast or in traction, produces bone resorption with excretion of large quantities of calcium. Renal tubular acidosis, seen in pyelonephritis, nephrocalcinosis or a congenital tubular defect causes an inability of the tubules to produce ammonia, excrete hydrogen ion, or concentrate the urine. There is loss of fixed base in the form of increased calcium and potassium excretion. Hypercalcuria in sarcoidosis is apparently caused by invasion of osteoblasts and demineralization. In idiopathic hypercalcinuria there is apparently a reduced renal threshold to calcium excretion since the serum levels are normal and acidosis is not present.

There is no apparent metabolic cause for magnesium ammonium phosphate calculi—the usual etiologic factors being stasis and alkaline infection.

As concerns study of patients with relatively nonradiopaque calculi, the same general rules of study apply. The first step is to determine the presence of any underlying metabolic disease or etiologic factor.

Uric acid calculi which form in the kidney and ureter are usually caused by a metabolic error in purine metabolism. This is in contrast with uric acid calculi of the urinary bladder which result from stasis. The urine is acid and usually uninfected. In many cases there is an increased level of uric acid in the blood without increased urinary excretion, as sometimes occurs in gout. In some instances, however, there is an elevation of the serum uric acid (normal 2 to 4 mg. per 100 ml.) and increased urinary excretion, normally 0.3 to 1.2 gm. for 24 hours.

Cystine calculi result from an intermediary protein metabolic defect in which incomplete oxidization of cystine is followed by the increased urinary excretion of crystalloids and formation of stones. About 2.5 per cent of patients with cystinuria have calculi.[5] These stones are frequently stag-horn and slightly radiopaque. The urine is acid and usually uninfected. The diagnosis may be made by an elevated 24-hour urinary output of cystine[3] (normal 10 to 15 mg.).

Although it may not be advisable to place every patient who forms a calculus on an intensive prophylactic regimen, the authors consider the following indications mandatory:

1. One or more recurrences.
2. One kidney removed because of calculous disease.
3. Calculi in a single kidney (other kidney absent or removed for whatever cause).
4. Calculi present but operation refused or not considered practical.
5. Presence of residual urinary infection or obstruction which is impossible to eliminate following removal of calculus.

For the success of any plan of prevention, two objectives must be attained: The prevention of a nidus for a calculus to form, and the prevention of crystalloid concentration sufficient for precipitation on a nidus.

Some measures are effective regardless of the type of calculus:

1. The ingestion of large quantities of fluids. Patients should be advised to take three to four quarts of fluid daily, with instructions to distribute the intake over the waking hours as evenly as possible—one glass or more every hour. This maintains a constantly low concentration of urine. The more dilute the urine, the less the likelihood of crystalloid precipitation. This measure is also helpful in combating urinary infection.
2. The desirability of eliminating any complicating infection, obstruction or stasis is obvious.
3. Physical activity is essential. Since recumbency causes loss of calcium and phosphate in the urine, it is a factor in promoting the growth of all types of calculi. In patients with spinal cord or orthopedic difficulty, provisions should be made for ambulation or similar physical activity.

When ambulation is not practical, administration of hyaluronidase may possibly prevent calculus formation during the initial period of recumbency when calcium metabolism in the bones is being restabilized and excess calcium in the urine is inevitable.[2] When this enzyme is injected subcutaneously, hyaluronate is released from the site of injection and subsequently reaches the urine. Dosage may be regulated according to the amount necessary to clear the urine of turbidity and sediment. It varies between 150 and 900 turbidity-reducing units every 24 to 48 hours. This substance, acting as a protective colloid, is said to disperse the crystalline matter already present in the urine and to inhibit the formation and growth of new crystalline matter. (The authors have not found hyaluronidase useful in other circumstances, and are not certain of its use in recumbency.)

The following measures apply to patients with a tendency to form radiopaque calculi:

1. Patients with calculi composed of phosphorus or calcium are placed on the low-phosphorus diet advocated by Shorr.[7] Since foods low in phosphorus are usually low in calcium as well, the excretion of urinary calcium as well as phosphorus is reduced. A particular advantage of a low-phosphorus diet is its safety in cases of renal impairment in which an acid-ash diet would be dangerous. In patients with de-

TABLE 2.—*Low phosphorus menu pattern*

(Approximately 2000 calories, with 75 grams protein)

GENERAL RULES

1. Drink large quantities of fluids: 3 to 4 quarts per day.
2. Limit intake of food of highest phosphorus content: meat, fish, fowl, eggs, milk and cheese. The suggested menu pattern supplies approximately 2000 calories, 75 grams protein, 900 milligrams phosphorus and 345 milligrams calcium.
3. Take 2½ tablespoons (1½ ounces or 45 ml.) Basaljel 4 times daily; one hour after meals and at bedtime.
4. Take one capsule daily of one of the following vitamin preparations: Unicap, Upjohn; Vita Kaps Improved, Abbott; Stanford Vitamin Capsule.

FOODS PERMITTED	FOODS EXCLUDED
Beverages: Artificial fruit ades, carbonated beverages, coffee, lemonade, tea. 3 to 4 quarts daily. Whiskey if desired.	Ale, beer, brandy, milk drinks, postum.
Bread: White bread, white rolls, raised doughnuts. Five slices of bread daily.	Hot breads, biscuits, muffins, pancakes, waffles, whole grain breads.
Cereal: Refined cereals as cornflakes, cornmeal, regular cream of wheat, Farina, rice krispies; use 1 serving as substitute for 1 slice bread.	Whole grain cereals, bran, oats, wheat.
Condiments: As desired.	
Dairy Products and Eggs: Use ½ cup milk, or 1 egg, or ¼ cup cottage cheese, or 3½ ounces cream cheese or 2 ounces Camembert.	Processed cheddar, cheese food, processed Swiss.
Desserts: Apple betty, angel cake, apple or blueberry pie, sherbet, ices.	Cake, ice cream, cream pies, pudding.
Fats: Butter, hydrogenated fat, brown gravy, lard, margarine, French dressing, hard sauce.	Gravies, dressing or sauces made with milk or eggs; nuts.
Fruits or Fruit Juices: 1 serving citrus; 1 to 2 servings apple, apricot, berries, cherries, grapes, melon, peach, pear, pineapple, plums or tangerines.	Currants, prune juice, raisins.
Meat, Fish or Fowl: 6 ounces. Beef, chicken, lamb, pork, sausage or fish or shellfish such as: bass, clams, cod, crab, flounder, haddock, herring, lobster, oyster, scallop.	Broilers, dried beef, liver, sardines, sweetbreads.
Potato or Substitute: ½ cup serving as desired.	Creamed or scalloped.
Soup: 1 serving. Bouillon, chicken-noodle, chicken-rice.	Bean, beef or vegetable. Cream soups.
Vegetables: 3 servings. Beets, cabbage, carrots, cucumber, green beans, green leafy vegetables, pepper, rutabagas, scallions, squash, tomatoes, turnips.	Artichoke, lentils, mushrooms, peas, soybeans.

Note: Foods not listed should be used only occasionally and in limited quantities; avoid phosphate laxatives, phosphate baking powders, self-rising flours.

SUGGESTED MENU PATTERN

Breakfast:	Mg. Phosphorus
Orange juice, 6 oz.	30
Cereal, fine, 1 serving	22
Toast, white, 1 slice	21
Butter, 1 teaspoon	1
Jelly, 1 tablespoon	2
Milk and cream (half and half)	104
	180

Lunch:	
Sandwich:	
Meat, 2 oz.	130
Bread, white, 2 slices	42
Butter and mayonnaise	4
Vegetable or salad	35
Fruit	25
Sugar, coffee, tea	0
	236

Alternate Breakfast:	Mg. Phosphorus
Orange juice, 6 oz.	30
Egg, 1	105
Toast, white, 2 slices	42
Butter, 1 tablespoon	2
Jelly, 1 tablespoon	2
Sugar, coffee, tea	0
	181

Dinner:	
Soup or fruit cocktail	25
Meat, fish or fowl, 4 oz.	260
Potato or paste, ½ cup	56
Vegetable, ½ cup	35
Salad	35
Hard roll, 1	25
Butter, seasonings	4
Dessert	35
Sugar, coffee, tea	0
	475

Approximate total 892 milligrams phosphorus.

Between Meals: Plain gelatin, lemonade, artificial fruit ades, water to bring fluid intake to 3 to 4 quarts per day.

creased renal function, acidosis tends to develop because of the retention of acid radicals (phosphate, sulfate, organic acids, urea). An acid-ash diet would aggravate the acidosis and throw the extra burden of excreting excess acid on already damaged kidneys. In order to make the diet as palatable as possible, the authors have attempted to incorporate a wide selection of foods. The diet contains approximately 2,000 calories, with 75 gm. of protein and less than 1 gm. of phosphorus (Table 2). To patients who wish to calculate their own diets, we give a more complicated diet form which lists the phosphorus content of all foods.*

While the patient is on this diet, the 24-hour urinary output should ideally contain less than 300 mg. of phosphorus. Determination of the phosphorus excretion is the guiding test in the control of the Shorr regimen. This is made every few weeks until the excretion becomes stabilized.

As a check that all the 24-hour urine has been collected, creatinine excretion is also measured. It should fall in the range which is constant for each patient. There is no evidence that a constant dietary reduction of phosphate gives rise to hypophosphatemia or its sequelae, but the authors are investigating this question further.

2. As an adjunct to the low-phosphorus diet, Shorr management consists of administering an aluminum gel — aluminum carbonate being the most effective—to divert phosphorus from the urine to the bowel. Aluminum carbonate (Basaljel®) acts with phosphate by absorption to form insoluble aluminum phosphate. The more Basaljel the patient takes, the more latitude may be permitted in the matter of diet. Thirty to 40 ml. of Basaljel four times daily, one hour after meals and at bedtime, is the average dose. To make it more palatable, the patient is instructed to flavor it with lemon juice or a Kool-Aid powder. For a few weeks constipation occurs but it gradually abates. Fruit juices or a mild cathartic such as cascara may be given in the early stages of this treatment.

The authors have not found any tablets as effective as Basaljel liquid, but if patients will not cooperate in taking the liquid, Aludrox® may be substituted. One tablet is slightly less effective than one teaspoon of Basaljel.

3. Because of the theoretical possibility that vitamins may help to preserve a normal urothelium and prevent nidus formation, such as Randall's subepithelial calcium plaque, patients are given a multivitamin preparation, one capsule daily.

4. In the absence of infection, acidification of the urine is not necessary with this regimen. However, if the urinary phosphate cannot be adequately decreased, or if urea-splitting organisms are present and magnesium ammonium phosphatic calculi are forming, acidification of the urine with some form of mandelic acid or ammonium chloride or an acid-ash diet is indicated. Aluminum carbonate tends to alkalinize the urine.

The specific measures for the management of patients with the relatively nonradiopaque cystine, uric acid and xanthine calculi are much the same for all three types of stones.

1. Since these calculi form in acid urine, measures are taken to alkalinize the urine, maintaining the pH at from 7 to 7.5. This is accomplished by either or both of two measures: Either the administration of 4 to 12 gm. of sodium citrate or sodium bicarbonate daily, or by an alkaline-ash diet.

Testing the urine with nitrazine paper is a convenient method for the patient to determine the efficacy of these measures.

2. A low-purine diet aids in reducing cystine, uric acid and xanthine output even though the primary defect is metabolic, not purine intake. In fact, uric acid is excreted by persons on a purine-free diet. In gout, drugs such as acetylsalicylic acid in a dose of 4 to 6 gm. daily or colchicine in acute attacks of arthritis also tend to lower the blood uric acid level and probably the urinary excretion. Smaller doses of acetylsalicylic acid may cause uric acid retention in the blood.

As with radiopaque calculi, the ingestion of large quantities of fluids is essential.

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*Authors will supply copies of this diet on request.

Reconstructive Operations on the Biliary Tract

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• Fifty cases in which reconstruction of the biliary system was carried out were reviewed. In 25 cases the operation was done during the treatment of malignant neoplasms. The other 25 patients were treated for benign conditions. Delayed stricture of the biliary anastomosis occurs more frequently following operation for benign post-traumatic obstruction than following reconstruction for other conditions. This is probably a result of: (1) greater regional scarring, (2) local infection, and (3) technical imperfections in the reconstituted biliary anastomosis.

Certain primary malignant tumors may be difficult to recognize by both gross and microscopic examination. In six cases of biliary obstruction resulting from malignant neoplasms in the present series, exploration had been carried out some time previously, and in four of them an erroneous diagnosis of benign biliary obstruction was made.

End-to-end anastomosis of the duct above and below the point of obstruction is the method preferred in the treatment of benign biliary stricture. Intrahepatic and extrahepatic biliary-enteric anastomoses have been used successfully in selected cases.

Reconstructive procedures to establish the flow of bile into the alimentary tract may be indicated in the following conditions: When injuries to the common or hepatic ducts are recognized and repaired at the time of the initial surgical procedure; when secondary repair follows unrecognized trauma of the main biliary channel, unsuccessful primary repair, or obliterative extrahepatic cholangitis after operation on the biliary tract; and when treatment of malignant neoplasms involves some portion of the extrahepatic biliary system.

Cole, Reynolds and Ireneus[2] estimated that approximately 80 per cent of the benign strictures of the common duct are due to operative injury of the duct, usually during cholecystectomy, and less frequently during subtotal gastrectomy. The precautions that should be exercised during these procedures to protect the common duct from injury have been repeatedly emphasized. Johns'[3] presentation of this subject is particularly illuminating.

There is general agreement that restoration of the function of the sphincter of Oddi is desirable in choledochoplasty and, whenever possible, the continuity of the biliary tract should be reestablished by an end-to-end anastomosis of the duct above and below the point of obstruction. When conditions are such that it is technically impossible to perform such a repair, an anastomosis of the proximal duct to a defunctionalized segment of the jejunum is the next choice. Anastomosis of the proximal duct to the intact duodenum or a functioning jejunal loop has also been successful in many cases. In previous publications[4, 5, 6] the use of intrahepatic cholangiojejunostomy was recommended for extensive benign obstruction of the extrahepatic biliary system if the usual methods of reestablishing biliary-enteric continuity proved to be inadequate.

Excision of the duodenum or the head of the pancreas for neoplasms entails the removal of a portion of the common duct, in which case some type of biliary-enteric anastomosis must be performed. End-to-side choledochojejunostomy is the technique usually employed.

Bowers[1] recently reported a series of 14 cases in which the common duct was transected and reimplanted into the duodenum in the treatment of relapsing pancreatitis. Incomplete biliary drainage was encountered in only one of these patients.

MATERIAL

This report presents experiences with reconstructive procedures of the biliary tract in 50 patients. Benign biliary obstruction was present in 25 of them, and reconstruction was done in 25 others during the surgical treatment of a malignant neoplasm of the extrahepatic biliary system or of adjacent organs. These patients were treated at the Wadsworth Veterans Hospital, the Los Angeles County Harbor General Hospital, or in the private practice of the authors.

Male patients predominated in this series because of the number of cases included from the Veterans

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TABLE 1

Type of Operation	Carcinoma of the Pancreas	Carcinoma of the Ampulla	Carcinoma of the Gallbladder or Common duct	Other Malignancy	Chronic Pancreatitis	Primary Trauma	Secondary Stricture	Total
Pancreatoduodenectomy	7	4	2	3	5	....	....	21
End-to-end anastomosis	....	....	1	....	....	2	10	13
Hepaticojejunostomy	....	. .	2	....	....	....	1	3
Choledochoduodenostomy	....	....	3	1	....	....	....	4
Choledochojejunostomy	....	....	1	....	....	....	1	2
Cholangiojejunostomy	..	....	....	. ..	....	....	6	6
Other	....	....	2	....	....	1	....	3
Total	7	4	11	4	5	3	18	52

Hospital. In the private and county hospital cases, ten benign strictures to one malignant obstruction was the average ratio encountered in the female patients, while in the male patients the ratio was six obstructions due to malignant lesions to three benign obstructions.

The average age of 19 patients with trauma to or stricture of the biliary tract was 41.2 years. In the five cases in which surgical treatment for pancreatitis required biliary reconstruction, the average age was 45.6 years. There were 15 patients with primary malignant tumors of the extrahepatic biliary system. The average age for this group was 55.3 years. In seven cases of carcinoma of the pancreas the average age was 62.7 years, the oldest group of patients in the series. The average age of the four patients in whom reconstructive biliary operation was utilized in the treatment of malignant lesions of adjacent organs was 38.8 years. This was the youngest group in the series.

TREATMENT

A pancreatoduodenectomy or "Whipple" operation was done in 21 instances, for the following conditions: Carcinoma of the head of the pancreas, in seven cases; carcinoma of the ampulla of Vater, four cases; carcinoma of the common duct, two; carcinoma of the duodenum, one; other types of carcinoma, two; chronic pancreatitis, five. In all these cases the end of the common or the hepatic duct was anastomosed to the side of the jejunum or the third portion of the duodenum.

An end-to-end anastomosis of the bile duct was used in 13 operations for the following conditions: Ten for stricture secondary to surgical trauma, two for primary trauma, and one for carcinoma of the common duct. Two patients in this series had two end-to-end anastomoses for recurrent stricture.

Hepaticojejunostomy, using a Roux-Y jejunal limb, was done in three cases, in one case each of carcinoma of the gallbladder, carcinoma of the common duct and benign stricture. Hepaticoduodenostomy was used on one occasion, in a patient with lymphosarcoma involving the common duct. Choledochoduodenostomy was used in three patients with carcinoma of the common duct and in one with carcinoma of the stomach. The common duct was anastomosed to a jejunal loop in one patient with carcinoma of the stomach, to a Roux-Y jejunal limb in one patient with a benign stricture, and to the stomach in one patient with carcinoma of the common duct. The series includes six patients in whom cholangiojejunostomy was done. Removal of a ligature about the common duct and insertion of a T-tube was done in one case (see Table 1).

RESULTS

Carcinoma of the Pancreas. Seven patients with carcinoma of the head of the pancreas were treated by means of pancreatoduodenectomy with end-to-side anastomosis of the biliary tract to the jejunum or third portion of the duodenum. Results in the treatment of this disease have been as discouraging as those reported by others. Only two of these patients escaped serious immediate postoperative complications. Four of the patients survived two months or longer and all died within a year of the date of operation. In two cases biliary fistulas developed during the immediate postoperative course. It is interesting, however, that those who survived four months or longer did not experience difficulties with the biliary-enteric anastomosis until there was evidence of recurrent carcinoma. Delayed benign stricture of the anastomosis was not encountered.

Carcinoma of the Ampulla of Vater. Pancreatoduodenectomy was used in four patients with carcinoma of the ampulla of Vater. One patient died during the postoperative period, while the remaining three lived for over four months. Three years after operation one of the latter died of recurrent carcinoma. Stricture or obstruction of the biliary anastomosis did not occur in any of these cases.

Carcinoma of the Extrahepatic Biliary System. Biliary reconstruction of some type was attempted on ten patients with carcinoma of the bile ducts and on one with carcinoma of the gallbladder. Due to the extensive character of the neoplasm, only a palliative rather than a curative procedure could be performed on nine of these patients.

TABLE 2—*Neoplasms of the biliary system*

CANCER OF THE BILE DUCTS

Case	Result Expected	Immediate Post-operative Course	Survival Time	Remarks:	Type of operation	No. of operations
1.	Curative	Good	4 yrs. 3 mo.	Died of recurrent cancer	Whipple	1
2.	Curative	Good	3 yrs. 1 mo.	Alive and well	Whipple	2
3.	Palliative	Good	4½ mo.	Alive and well	End-to-end	2
4.	Palliative	Good	2 yrs. 6 mo.	Died at 84, recurrent cancer	Hepatico-jejunostomy	3
5.	Palliative	Good	4 mo.	Died, extensive cancer	Choledocho-duodenostomy	1
6.	Palliative	Good	1 yr. 5 mo.	Died, general tuberculosis	Choledocho-duodenostomy	1
7.	Palliative	Complicated	7 days	Duodenal fistula, peritonitis	Choledocho-duodenostomy	2
8.	Palliative	Complicated	18 days	Extensive cancer, steady downhill course	Choledocho-jejunostomy	1
9.	Palliative	Complicated	8 mo.	Died, extensive cancer	Choledocho-gastrostomy	2
10.	Palliative	Complicated	6 weeks	Alive, receiving x-ray	Hepatico-duodenostomy	3
			CANCER OF THE GALLBLADDER			
11.	Palliative	Complicated	1 day	Died, shock and hemorrhage	Hepatico-jejunostomy	1

A "curative" procedure was performed on the two patients whose carcinoma was small and located in the distal end of the common duct, within the head of the pancreas. Pancreatoduodenectomy was done and in both cases the immediate postoperative course was uneventful. One patient lived four years and three months before dying of recurrent carcinoma. The other patient was alive and well without evidence of disease 37 months after operation.

Table 1 indicates the variety of procedures that have been used to divert the flow of bile from the proximal ductal system around the obstructing neoplasm and into the alimentary tract. Anastomosis of the gallbladder to the intestine has not been used in any of these patients because of obstruction above the junction of the cystic and hepatic ducts or because the gallbladder had been previously removed. There were two deaths in the period immediately after operation. One patient who was gravely ill with carcinomatosis died 18 days after operation. Two patients were alive and well at the time of this report, one six weeks and the other four and a half months after operation. One of these patients is receiving roentgen therapy, as the obstructing neoplasm is a lymphosarcoma. Two patients had good palliation for over a year, although one of them eventually died of generalized tuberculosis. Two other patients found to have very extensive carcinomatosis at operation died within a few months without receiving appreciable benefit from the procedure. Postoperative biliary obstruction, when it occurred in these cases, resulted from extension of the neoplasm and not from benign scarring or stricture (Table 2).

Carcinoma of Adjacent Organs. Biliary reconstruction was done in four cases during extensive resections of neoplasms of adjacent organs. The neoplasms originated in the stomach in two patients, the colon in one patient, and in the duodenum in another. None of these patients survived the extensive resections beyond the immediate postoperative period.

Chronic Pancreatitis. Five patients with localized chronic pancreatitis were treated by pancreatoduodenectomy with an end-to-side biliary-enteric anastomosis. There were no deaths in this group up to the time of this report, and in only one patient were there serious complications following operation. The biliary-enteric anastomosis functioned without difficulty in all cases. One patient has been observed for four years since operation (Table 3).

Primary Trauma. Three patients were observed soon after the original trauma to the duct. In two cases the trauma was recognized and repaired by end-to-end anastomosis at the time of injury. In the third case exploration was carried out a few days following the original operation. An occluding ligature was removed from an intact common duct, and a T-tube inserted. A stricture which developed 11 months following this procedure required excision and end-to-end anastomosis.

One of the two patients in whom primary anastomosis was performed also had a division of the hepatic artery. The duct and the artery were repaired by end-to-end anastomosis but the patient died of hepatic failure. Severance of the common duct was identified at the time of cholecystectomy in the second case, and careful end-to-end anastomosis over a small T-tube was carried out. The T-tube became obstructed five weeks after operation and was removed, but in a period of two and a half months of observation after operation the patient did well (Table 4).

Secondary Benign Stricture. There were 18 operations on 16 patients in this group. End-to-end anastomosis was done ten times and hepaticojejunostomy and choledochojejunostomy once each. Cholangiojejunostomy has been used in six cases. All of the eight patients treated by end-to-end anastomosis were in satisfactory condition at the time of this report, although reoperation was required in two of these cases. Two patients were relieved of biliary obstruction by a biliary-enteric anastomosis.

Cholangiojejunostomy brought about satisfactory biliary drainage in three patients. One patient remained jaundiced, however—supposedly from severe cirrhosis, since roentgenograms showing drainage of the left and right lobes demonstrated the patency of the anastomosis. Two other patients died after operation, both of continued biliary difficulties. One of them obtained satisfactory biliary drainage after operation but he continued to have moderately severe attacks of cholangitis every three to six months. Death occurred following reexploration of the liver hilus at another hospital six years after the cholangiojejunostomy. Autopsy disclosed multiple stones in the hepatic ducts. The operation failed to produce drainage of bile into the intestinal tract in only one patient. This patient had an external biliary fistula and the intrahepatic ducts were not greatly dilated. The external fistula persisted after operation. Further surgical procedures were refused and death occurred 13 months after operation (Table 5).

DISCUSSION

Extrabiliary lesions such as carcinoma of the pancreas, or chronic pancreatitis frequently cause dilation of the biliary tract and thickening of the wall of the duct. When a partial resection of the common duct is required in such cases, a sizable proximal segment of the duct usually remains and biliary-enteric anastomosis can be performed without undue technical difficulty. The absence of cholangitis in such cases is another factor which is undoubtedly important in explaining why benign secondary strictures did not form at the site of biliary anastomosis in cases of this type in the present series. On the other hand, there was a history of recurrence of an anastomotic stricture following reconstructive procedures for traumatic stricture in ten of sixteen cases.

If trauma to the duct occurs, the optimum conditions for a successful repair are undoubtedly present at the time of the original operation.

TABLE 3—*Pancreatitis*

Case No.	Immediate Postoperative Course	Survival Time	Remarks
1	Uneventful	4 yrs.	General condition good. 30 lb. weight gain. Occasional cramps and diarrhea.
2	Uneventful	7 mo.	Condition satisfactory. Gain in weight.
3	Uneventful	3 yrs. 8 mo.	Satisfactory
4	Complication of intraperitoneal abscesses	4 mo.	Improving
5	Uneventful	1½ mo.	Improving (diabetes)

TABLE 4—*Primary trauma*

Case No.	Operation	Results
1	Removal of ligature of common duct Insertion of T-tube.	Tube remained 3½ weeks. Stricture occurred 11 mo., later requiring reoperation.
2	End-to-end anastomosis	Died of hepatic failure. Had also sustained injury of hepatic artery.
3	End-to-end anastomosis	Tube removed in 5 weeks. Condition satisfactory 2½ months postoperatively.

Subsequent scarring of the duct wall and adjacent tissues and local infection, conditions which are invariably associated with secondary repairs, contribute greatly to the failure of subsequent operations for biliary reconstruction.

Leakage at the biliary anastomosis did occur during the early postoperative period in three cases following pancreatoduodenectomy and caused serious postoperative complications. A well-supported anastomosis must be carefully done, using two rows of interrupted sutures. Beyond the immediate postoperative period the results of biliary reconstruction, *per se*, have been good in the extrabiliary lesions.

A "curative" operation could be done in only two of eleven cases of carcinoma of the extrahepatic biliary system. In both of these the lesions were in the distal portion of the common duct and were treated by pancreatoduodenectomy. The first patient died of recurrent carcinoma four years and three months after operation. Three years and one month after operation the second patient was well and without evidence of recurrence.

Certain malignant tumors arising in or involving the common duct are characterized by the formation of abundant fibrous or scar tissue. It may be difficult to establish the correct diagnosis of such tumors since the malignant character of the tissue may not be noted in histological studies of frozen sections. In six of the eleven cases exploration had been done elsewhere prior to the operations considered in the present series. In four of these six cases an

TABLE 5—*Benign strictures*

Case No.	No. of operations	Operation performed	Immediate result	Tube removed	Follow-up period	Present Condition
1	1	End-to-end	Good	42 days	15 mo.	Good, two episodes cholangitis
2	2	End-to-end	Good	27 days	9 mo.	Excellent
3	1	End-to-end	Good	7 weeks	Reexploration for biliary obstruction date unknown	Satisfactory
4	3	End-to-end	Good	5 months		Obstruction recurred after removal of tube
*	4	End-to-end	Good	4½ months	3½ yrs.	Good, occasional cholangitis
5	2	End-to-end	Good	1 year	5 yrs.	Satisfactory
6	2	End-to-end	Satisfactory		4 yrs.	Good, occasional mild cholangitis
7	1	End-to-end	Good	3 months		Recurrent obstruction at 6 months
*	2	End-to-end	Good	3 months	3 yrs. 7 mo.	No obstruction. Has antral gastritis
8	1	End-to-end	Good	4 months	7 yrs.	No obstruction. Diag. duodenal ulcer
9	1	Hepatico-jejunostomy	Satisfactory cont. pain	6 weeks	7 weeks	No fever. Jaundice cleared. Cont. pain, addiction
10	2	Choledocho-jejunostomy	Good		5 yrs. 5 mo.	Satisfactory
11	4	Cholangio-jejunostomy	Fair		13 mo.	Died. Biliary drainage not satisfactory
12	4	Cholangio-jejunostomy	Good		4 yrs. 3 mo.	No obstruction. Various abd. complaints
13	2	Cholangio-jejunostomy	Good		3 yrs. 4 mo.	Excellent
14	4	Cholangio-jejunostomy	Satisfactory until 12th day		Hemorrhage, Esophageal varices	Died
15	4	Cholangio-jejunostomy	Good		4 yrs.	Partial jaundice persists. Severe cirrhosis. Anas. patent
16	5	Cholangio-jejunostomy	Good		6 yrs.	Intermittent cholangitis. Died after reexploration of hilus. Intrahepatic stones found at autopsy

* (Reoperation)

incorrect diagnosis of benign stricture or obliterative cholangitis had been made.

These fibrous neoplasms grow slowly, and they produce no symptoms other than of biliary obstruction for long periods of time. One patient in the present series lived comfortably for over two years following relief of biliary obstruction by a "sidetracking" procedure. We have not had occasion to perform cholangiojejunostomy for this type of neoplasm but it might be indicated in certain cases, as has been suggested by Waddell and Burbank.[7]

The tumor was much less favorable in its growth characteristics in four of the cases herein. There was wide extension of the tumor at the time of exploration and, despite various diverting procedures, the patient's condition continued to deteriorate. The longest survival period was eight months.

End-to-end anastomosis of the duct above and below the obstruction has been the preferred method of treating benign biliary stricture. Two of the patients with benign stricture underwent reexploration. Two patients were treated with biliary-enteric anastomosis. Drainage was satisfactory in all of these patients at the time of this report.

Following failure of the usual methods of reconstruction, cholangiojejunostomy was used in six of the present cases. This procedure has been of definite benefit and should not be withheld until repeated obstructions have brought about advanced biliary cirrhosis. Two unsuccessful attempts by competent surgeons to repair the ductal system at the hilus should be sufficient indication to consider the use of cholangiojejunostomy.

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Parent-Child Relationships

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• *Parents and doctors have an obligation to supply children with an emotional diet leading to their eventual maturity. This is as important to the child as is his physical guidance. The proteins, carbohydrates, fats, minerals and vitamins of a child's emotional diet are: (1) the need for security; (2) the need to achieve social adaptability; (3) the need for success; and (4) the need for independence. In helping parents provide their children with these major guideposts along the road of character development toward maturity, physicians have a challenge and opportunity for real service to the humanities—a field of endeavor far behind science in human progress.*

THE OBJECTIVE of good parent-child relationships is to help children grow into mature adults. The purpose of this paper is to discuss some of the ingredients of better attitudes of parents toward their children and of children toward their parents. It is hoped thereby to help physicians to help parents provide their children with the major guideposts along the road to emotional stability and maturity in adult life.

It would be both inappropriate and presumptive for a pediatrician to attempt to discuss the underlying principles of mental hygiene as applied to children. Psychiatrists are the experts in this field. They continually look back into childhood influences for the causes of disturbed personalities which they see in adult patients. However, they are unable to give guidance to all children; they must use their time to deal with the results of long continued, unhealthy emotional environments. Hence it clearly behooves physicians who see the masses of children and their parents to have some understanding of the proper ingredients of healthy personality development. We should also know something about the essential emotional needs of children. In addition, we should have some grounding in simple practical methods of helping parents to supply those needs. At the same time we should be able to help them to direct the satisfactory adjustments which must be made between the child's own instinctive drives and the restrictions on them imposed by society. We general physicians should also realize that this process starts at birth and presents new problems of adjustment in a continuing manner all through infancy and childhood. Parents and the physicians who deal with children have an interesting challenge extending over many years—which is conditioning the child to self-sufficiency.

Many is the pediatrician who began practice well prepared to deal with pancreatic fibrosis, glycogen storage disease and the like, only to have a seemingly never-ending stream of patients whose chief complaints were such things as destructiveness, sullenness, disobedience, or nail-biting, temper tantrums, enuresis, fears. Many mothers thought such symptoms were caused by some mysterious physical disease, the origin of which we physicians were supposed to find. As we began to suspect such things as jealousy of a new baby as the cause of the bizarre behavior, the gaps in our training became more and more evident to us. We realized that antibiotics, and not even our old standby, aspirin, would cure such things as these. We made feeble efforts to solve some of these problems (in self defense), using a bizarre mixture of common sense, intuition, general experience, some psychology often lifted bodily from a popular magazine or the daily newspaper, and a few guesses thrown in for good measure. We became quite expert in consistently giving parents the wrong answers. As preventive medicine has progressed, however, we have learned to look on the child as an individual in whom physical well-being and emotional welfare are a reciprocal and indivisible unit. At the same time we have come to recognize that our responsibilities had expanded to the point where we should have firmly grounded, positive information to offer parents in order to develop not only the best organic mechanism, but the most satisfactory personality of which the child is intrinsically capable.

For a discussion of this subject, the term *mental hygiene* seems a poor one. Hygiene smacks of sanitation, septic tanks, mosquito control and even brushing teeth. *Mental health* seems a better term. We think of a mentally healthy child as one who, step by step as he grows in size and years, is also growing in self control, is learning to find adequate expression for his instinctive drives in harmony with his own developing sense of conscience and of

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society's dictates. We have learned that children (and we include infants) thrive best when they live in a climate of human attitudes and relationships which supply certain basic needs. These needs are the protein, carbohydrate, fat, minerals and vitamins of their emotional diet. Many a problem in behavior may be solved in terms of these needs unsatisfied. The more important of these are: (1) the need for security; (2) the need to achieve social adaptability; (3) the need for success to satisfy ego; for activity leading toward achievement which results in the child's satisfaction; and (4) the need for independence appropriate to the age of the child.

A DIET OF SECURITY

When such basic emotional needs as these are not supplied, the child becomes distressed emotionally and will develop attitudes and actions of an unhealthy nature in a vain attempt to solve a problem with which he is incapable of dealing. When we connect such symptoms as lying, destructiveness, jealousy, fears, negativism or overly aggressive behavior with a lack of security, for instance, we are often well on the way to treatment of a simple, direct sort. Better still, if we teach the mother of a newborn baby the basic need to feel secure, and teach her how she can give her child security in a sensible manner, then we have done something in prevention. To give the infant or child security, parents must learn to accept him for what he is, for a rejected child is not secure, and even the newborn senses intuitively the psychological climate in which he is placed. Parental approval is one of his most urgent needs, and, as with all that affects the child, the parent's attitude toward him is brought home to him through their actions day after day—never by sporadic inconsistent displays of (often false) affection through words. Fondling the infant, romping with the youngster, respecting the differences in attitudes and expressions between two siblings, one of whom is an extrovert and the other an introvert, rather than forcing one to be like the favored other—all are ways to provide a good nourishing diet of security. The attitude of the parents along these lines should be shaped and decided upon early. Some parents are confused and need help in organizing and recognizing their own attitudes so as to crystallize them into helpful channels of action. For example, an early decision as to whether parents want success for their child purely in a competitive sense, setting arbitrary standards of achievement often beyond their child's capabilities at any particular stage, or whether they desire competitive success only commensurate with their child's innate capabilities, is of extreme importance. The former attitude often puts the child under pressure—pressure to win, to remember that rhyme, to achieve toilet-training earlier than anyone else in the block. If the pressed youngster cannot deliver, he early feels insecure and all sorts of neurotic behavior results. However, if healthy parental attitudes engender encouragement for *any* accomplishments, whatever they may be, the child's need of security, born of acceptance, is fostered, and it makes no difference then whether he is captain of the team or merely a substitute.

As to social adaptability, it begins in the cradle. For example, the young baby's propensity for crying each night—every night from 6 p.m. to 10 p.m. just when the tired young father has returned from work and dinner must be prepared, is not too socially acceptable. Often by keeping such a baby awake for the same three to four hours each day, day after day, his normally wakeful hours can be directed by habit training into much more acceptable channels. The baby needs this habit training, needs consistency and regularity, not only to foster security within himself but to satisfy his own innate desire to conform. As the infant grows, the instillation of automatic good habits involves discipline. Discipline and punishment are often confused. Discipline involves teaching and learning the rules of the game, while punishment represents the penalty for infractions of these rules. Thus, discipline takes on a healthful, positive connotation as a process of learning that fosters growth and development. The word itself comes from *disciple*, so wise parents are making a disciple in a way of life that leads to usefulness and happiness and enables their child to profit by conforming to standard conduct. Such a program helps him develop his own rules of the game, and thus his conscience. Wise parents teach by precept and example, not by just nagging words.

THE PURPOSES OF A REGIMEN

Children learn by imitation and practice, by doing the accepted thing over and over. They establish spontaneous habits of behavior, and they are upset if life does not go on for them in orderly sequence. The infant's regimen agreed upon by the parents after reasonable discussion should not be regarded either as an unbreakable law or as a device for their own convenience, but as an important start toward their infant's self-discipline. A daily program based upon age and individual needs helps the child establish healthful habits of eating, sleeping, sphincter control, working, playing—all of which helps make life more comfortable for him and starts him toward adapting himself to the accepted conduct of his fellows. Basing such a routine on the infant's developmental age and ability to respond is fundamentally important. A youngster so trained has little difficulty in adjusting to a school program and other regulated activities as he approaches maturity. Overly strict parents or those who expect adult behavior at the five-year level, who are constantly bombarding their youngster with a torrent of do's and don't's in their misguided attempt at discipline, are not giving affectionate, firm guidance by repetition, precept and example. They usually forfeit their child's respect for them as parents (a respect which, by the way, must be earned and is not a God-given right) and they become only poorly respected policemen. Long before a child enters school his attitude toward authority has been formed. If he feels respect and kindness toward his parents, such feelings are easily transferred to his teachers and later to employers. Whereas if he feels parental authority has been arbitrary, confusing and unfair, he naturally will expect the same treatment later on and will develop habit patterns of self protection, manifested by escape or rebellion. He usually hates all authority and is always against things, never for them; he changes jobs frequently, leaves school frequently, and so on in the never ending pattern of which we hear too much. The parental attitude of over-protection and over-indulgence, on the other hand, deprives the child of valuable early training. It is easier to say "yes" than "no" at home, easier to stick a pacifier into the infant's mouth than to listen to the crying, or to buy candy to avoid being nagged. It later comes as a rude shock that all things do not come free for the asking. Anger and resentment are natural reactions in an untrained child whose innate drives have known no direction whatsoever, and are often expressed in many antisocial ways.

PUNISHMENT

Theoretically, the need for punishment denotes failure in discipline somewhere along the line. Many parents with healthy, constructive attitudes toward their children express this worry. It is well to remember that no one is perfect, and one should not expect parents to create a perfect environment of human relations for their children. A little advice to such people to the effect that a tree blown about by the wind puts down stronger roots, and that a child who must meet and solve a few irritations throughout life builds stronger character, usually restores the parents' self assurance and ease. The swing in our thinking from the belief that regular and frequent trips by Johnny and his Dad to the woodshed for a good tanning would keep him better in line, to the complete absence of punishment, and the frequent confusion of punishment with discipline, and the consequent lack of *any* direction, has been notable in the last few decades. Almost any physician must feel inadequate to advise precisely as to when and when not to resort to punishment. A few guides, however, may be helpful when this question comes up:

1. Punishment should not destroy what has been built up by wise training.

2. When punishing a child be sure that he knows what it is for before he is punished, and that he understands that the punishment is to help him remember the rules, rather than to vent the parents' anger or to make good a parent's threat.

3. Punishment should be commensurate with the age and developmental status of the particular child.

4. Depriving a toddler of attention often suffices —he wants that above all else—and it is often accomplished by confining him to his room.

5. Spanking a near teenage child is a humiliating experience for both parties, engenders shame and disrespect, and often deep resentment. Usually more is lost than gained by it.

6. All punishment should be consistent. If Grandma lets Johnny get by with a certain offense, while his mother shuts him up for half a day, he becomes either confused in his discipline or resentful of his mother or both. So consistency is important. But of equal importance is infrequency of punishment. Setting the sights too high regarding behavior tends to engender too frequent punishment, a lack of understanding of the meaning of punishment and discipline between parent and child, and fosters a break-down of discipline and morale in the home.

The third need is really ego food. To succeed is to feel secure. That applies to adults as well as to children. An infant who succeeds in reaching for and retrieving a rattle for the first time will gurgle with glee, much as does his father when he first breaks a hundred on the golf course. Too many parents whose children do not satisfy them for one reason or another, express their rejection by constantly talking down their child's accomplishments. Such mothers stream into doctors' offices with long prepared indictments on paper against their children, and almost before the greeting is over plunge into reading the list with evident relish and embellishments. All this in front of the poor, cowed prisoner who usually has long given up his last shred of confidence in himself, or glares at his tormentor with nothing short of hatred in his eye. When first spotted, such parents should be quickly ushered out of the room for a private conversation. Often the reason for the rejection becomes apparent with a little careful listening on the part of the doctor, who even in a busy practice can point out to such a parent the emotional food that all children need, adding a word or two about the individuality of man in general, including the mother herself, and gradually work toward at least a beginning in helping these poor people straighten out their problems. Children need to develop confidence in themselves, for self-confidence is one of the prime attributes of a mature, successful adult who contributes the most to, and gets the most out of, life. By this is meant real calm self-confidence, built steadily upon a diet of parental approval which starts in infancy and is nourished by the feeling in the child that, no matter what happens to him, he has a wise and helpful counselor ready with a word of encouragement and a pat on the back. Wise parents early should be cautioned to keep competitive pressure below the danger point of repeated failure, and later loss of self-confidence in their children. This involves an understanding of, and acceptance of, the intellectual endowment of their children. They often must be helped by a tactful doctor to evaluate their child's capabilities, so as to prevent undue competitive stress from bearing down on the patient. In the case of children with minor degrees of mental retardation, delicate situations, but none the less important, arise for solution. One should always be on the alert as to the competitive ability and status of a particular child, and as to that child's parents' reactions to it. Very often the utmost in cooperation between the doctor, the parents, and the school authorities can nip many developing inferiority complexes in the bud.

NEED FOR INDEPENDENCE

Independence is the fourth need of children. This is placed last on the list not because it is considered less important, but because its achievement perhaps more than the others represents the goal of maturity. At age 21 the umbilical cord is finally severed. However, if it is not recognized by parents and doctors alike who deal with families that this process begins in the delivery room, not only will there be ultimately many unhappy, over-dependent adult babies who are unable to make decisions and combat the ordinary problems of living, but also all sorts of emotional misfits throughout childhood will be amongst us too. Physicians dealing with children have made much progress in well-baby care along the lines of fulfilling the need of independence appropriate to the age of the child. We have stopped regimenting infants into fixed schedules and rigid techniques. We have stopped breaking them into and out of habits at certain fixed and specific ages irrespective of conditioning factors in the infant's physical and emotional make-up. We have learned the wisdom of feeling that the child has the right to follow his own growth pattern, a right to be given food when he is hungry and a right to refuse it if he isn't hungry. We are alert to help him take his next step ahead when, and only when, he is ready to take it, but we respect his right to go along on his own developmental timetable. The wise doctor will stress such things to young parents, and combine this concept of helping their offspring toward independence from the moment of birth, with some of the concepts of good discipline which were outlined in preceding paragraphs. We finally have learned respect for the individuality of man and the importance of giving it to him from the cradle onward.

TECHNIQUES FOR PHYSICIANS

As to techniques for the doctor to use in helping parents apply this knowledge, certain things are needed. First, the doctor, whoever he may be, who handles the family's medical problems must be aware of the great need for this kind of advice. Second, he must acquaint himself with certain basic concepts, some of which have already been touched upon here. Third, and most difficult of all, he must orient his values so as to become eager to offer help, not only after disturbed interpersonal relationships develop within the family involving the children, but before. He should train his interest to the point where he can smell out discord from a chance remark here and there, or perchance a failure in school, so that he will learn to deal with rejecting or over-anxious parents before their muddling produces serious effects. A list of some of the most common problems involving the mental health of children might be of interest. Many are only all too familiar, of course: The fearful anxious mother, overpowered by her sense of responsibility, who is constantly alarmed, in need of reassurance; the grimly determined and domineering mother who tries to force her child into rigid patterns of behavior, who creates issues and then imposes her own authority in settling them, and who fights down to the last bit of spinach; the over-protective and often possessive mother, who tries to shield her child from all that may be unpleasant about him; the frustrated mother, who has read all the books but cannot find the right answers for her child and has lost her own spontaneity as well as her sense of humor in the process.

Methods of treatment must be simple, for the time physicians have available (and lack of experience) demands that it be so. Recommending books for parents to read is not enough and usually serves only to confuse them. Frequent (often anticipatory) friendly, informal discussion of the principles involved, carried on in a spirit of sharing the child's upbringing with the parents, is direct, is not time-consuming and is helpful. Pointing out to parents that the child should have a father's as well as a mother's example and constant help is important. From birth the relationship between father and child should be close, intimate and continuing. Good rapport cannot be established quickly. Too many adolescents have grown up without the supporting paternal relationships which are so important to the development of a well-rounded personality. Mothers and fathers would benefit greatly in their continuing relationships with their children if they were given guidance by the family doctor bit by bit, as the physician deals with the child from infancy through childhood with the feeding, immunization and physical check-up programs, on house calls for illness, and maybe a bit here and there by phone. Such advice must be given patiently, but rather didactically. A psychiatrist, no doubt, would consider this approach to be crude, but it is effective if we stay clear of deep-rooted conflicts and well developed neuroses—so long as we stay fairly close to the surface, as it were. Complicated cases, of course, should be referred because of the limits of time and training of general physicians, but such cases should be few if we do our part. As the vast majority of children in this country receive their general care from family physicians, not from pediatricians, the responsibility and opportunity to provide good mental health and to promote good personal relations between parents and children rests with the family doctor. However, all of us who deal with children should recognize the need and do our part whenever the opportunity arises.

This topic is particularly apt at this time. It is obvious that our hoped-for better world will have to be inhabited by better people. The science, art and practice of human relations is becoming of paramount importance in our attempts to strengthen our kind of civilization. Here we physicians, in helping children grow into more mature adults, with wholesome minds and moral strength, have a challenge and opportunity for real service to the humanities, which is a field of endeavor far behind science in human progress.

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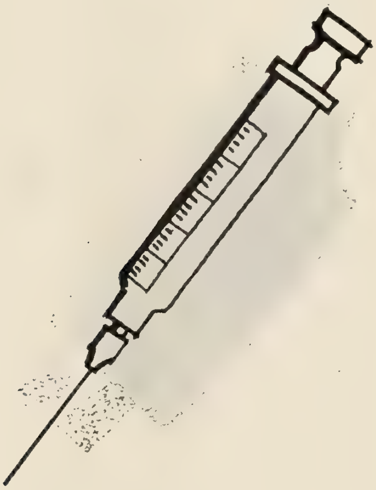

Foreign Medical School Graduates

Problems of Qualifying as Competent to Practice

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• It is financially and practically impossible to investigate thoroughly all the medical schools in the world and to keep the records current.

There is at present no acceptable method for screening the graduates. The official policy of the American Medical Association regarding licensing to practice medicine in the United States is that it is a state right and that it is entirely under the jurisdiction of the governments of the individual states.

Hospitals in this country have a great responsibility to the public and to their attending physicians not to engage incompetent physicians and not to exploit the physicians they engage.

It is the obligation of all medical licensing boards to constantly help in elevating and improving the standards of medical care. The foreign-trained physicians who have received medical education and training comparable to that given in this country will always be welcome.

The exchange of students and faculty members between schools in friendly foreign countries and the United States should be encouraged.

The number of foreign physicians serving as interns and residents in this country is steadily increasing.

IT HAS BEEN ESTIMATED that during 1954 more than 5,000 foreign medical graduates entered the United States as potential applicants for licensure in one or more of the states.[3]

The migration of large numbers of inadequately trained foreign physicians to this country has created many problems for the medical examining boards of the various states and for the Council on Medical Education and Hospitals of the American Medical Association. The foreign-trained physicians who have received medical education and training comparable to that given in this country will always be welcome. One of the best methods of establishing and maintaining friendly relations with other countries is through the exchange of ideas and ideals and the comparing and advancing of scientific knowledge. Qualified foreign graduates will always be openly received in this country, particularly those who wish to come for additional postgraduate training and then return to their countries.

REQUIREMENTS OF FOREIGN GRADUATES FOR CALIFORNIA LICENSURE[1]

The California Legislature at its 1951 session amended the law with respect to graduates of foreign medical schools. As amended, the law reads as follows:

"2193. An applicant, whose application is based on a diploma issued to him by a foreign medical school, except a Canadian school, shall furnish documentary evidence, satisfactory to the board, that:

"(a) He has completed in a medical school or schools a resident course of professional instruction equivalent to that required in this article for a physician and surgeon applicant.

"(b) Subsequent thereto, he has had issued to him by such medical school, a medical diploma, as evidence of the completion of the course of medical instructions required in this chapter.

"(c) He has been admitted or licensed to practice medicine and surgery in the country wherein is located the institution in which he has completed the resident courses of professional instruction required under this chapter.

"(d) He has served at least one year in a service satisfactory to the board in a hospital located in the United States and approved by the board for training of interns.

"(e) If the applicant is not a citizen of the United States the country in which he has been licensed to practice medicine and surgery will admit to practice therein citizens of the United States upon proof of prior admission to practice medicine and surgery in some state of the United States or upon proof of matters similar to those required in this section for graduates of foreign medical schools.

"Nothing contained in this section shall prohibit the board from disapproving any foreign medical school nor from denying the application if, in the

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opinion of the board, the instruction received by the applicant or the courses were not equivalent to that required in this article for a physician and surgeon applicant. Applicants under this section must pass a written, clinical, and oral examination before a certificate may be issued by the board. (Chapter 239, Statutes 1951.)"

EDUCATIONAL STANDARDS

Basically the problem is that many of the foreign-trained physicians do not have adequate training in the basic sciences. The period of training is usually several years shorter than that required in this country. There may be little or no selection of the applicants to medical schools. Some foreign medical schools may admit as many as one thousand students to the freshman medical class, and in many foreign medical schools the total number of medical students exceeds two thousand. Many foreign medical schools will admit practically every applicant without any attempt to eliminate even those who are obviously not qualified. In the United States all medical schools have rigid requirements for the acceptance of applicants. For example, Smiley[4] pointed out that in the fall of 1953, 14,678 students applied for admission to medical schools in the United States. Included in this number were 3,409 who were reapplying after failing to be admitted in the previous year. Approximately 40 per cent of the reapplying group were accepted and 57 per cent of the group applying for the first time were accepted. The total number admitted to all United States medical schools in the fall of 1953 was 7,756.

No medical school in the United States has a total enrollment of more than eight hundred students and the majority admit fewer than a hundred to the freshman class. In 1953 there were only 5,646 graduates of the 72 approved medical schools in the United States.[6]

The laboratory equipment, libraries, teaching facilities and teaching staffs in many foreign schools are far from adequate. Many of the foreign-trained physicians who have come to this country since World War II received their medical training during and immediately after the war years when there was an acute shortage of teaching facilities and teaching personnel. It is becoming increasingly difficult for many private medical schools in this country to finance the type of medical education which is required by our high standards. The cost of medical education in this country is unquestionably high. However, when one considers the contribution made to research, the provision of medical care to the indigent, the teaching of graduate students and the many other public contributions which a medical school and its faculty make directly and indirectly to the community, then certainly the cost is not excessive. Analyses made of the costs of medical education frequently do not take these facts into account. It is vital, however, that private institutions of learning be given every possible financial aid, for they are essential in the maintenance of our free enterprise form of government.

NUMBER OF FOREIGN MEDICAL SCHOOLS

The Council on Medical Education and Hospitals of the American Medical Association and the Executive Council of the Association of American Medical Colleges have published a list of foreign medical schools whose graduates they recommend for consideration on the same basis as graduates of approved medical schools in the United States. On the list in 1954 were only 50 medical schools in 14 countries, although there are more than 550 medical schools in the world. In the United States there are only 72 approved medical schools and in Canada ten.

It is obvious that it is financially and practically an impossibility to investigate thoroughly all the different medical schools in the world and to keep the records up to date.

LICENSURE PROBLEMS

It is readily apparent that there are many problems imposed by the different state laws governing medical licensure. The problems probably will continue until an acceptable screening method for foreign graduates is adopted by all the boards. In 11 states foreign-trained physicians are not eligible for licensure. Seven state boards do not require citizenship and 23 boards require full citizenship. Fourteen boards require that the applicant file first citizenship papers only. An internship or additional medical training in the United States is required by 27 state boards. Only 16 licensing boards limit recognition to graduates of the medical schools on the approved list of the American Medical Association. Other special requirements are requested by different boards.[6]

With regard to uniform medical license laws the following statement made by Turner[5] is of interest: "In the minutes of the annual meeting of the American Medical Association in 1887, there are indications of efforts to obtain the enactment of uniform medical licensure laws. After ten years of further unsuccessful effort in this direction, the California Medical Society introduced the following resolution at the 48th Annual Meeting of the American Medical Association in Philadelphia, 1897:

"*Resolved:* That it is the sense of this Society that the American Medical Association take such

TABLE 1.—*Aliens serving as first year interns and residents in hospitals in the United States, 1950 to 1954*

Year	Interns No.	Interns Per Cent	Residents No.	Residents Per Cent	Total No.	Total Per Cent
1950-51:						
Total	6,237		18,205		24,442	
Alien	722	11.6	1,350	7.4	2,072	8.5
1951-52:						
Total	6,783		16,135		22,918	
Alien	1,116	16.5	2,233	13.8	3,349	14.6
1952-53:						
Total	6,990		16,231		23,221	
Alien	1,353	19.4	3,035	18.7	4,388	18.9
1953-54:						
Total	7,705		18,191		25,896	
Alien	1,787	23.2	3,802	20.9	5,589	21.6

TABLE 2.—*Aliens on medical house staffs in approved hospital training programs, by states and territories, July, 1953. (Diehl, et al.[2])*

State	Total	Aliens No.	Aliens Per Cent
New Jersey	594	381	64
South Dakota	17	10	59
Montana	4	2	50
West Virginia	104	51	49
Hawaii	57	21	38
Ohio	1,675	541	32
Delaware	72	23	32
Rhode Island	102	32	31
Illinois	1,670	519	31
New York	5,001	1,480	30
Maryland	708	194	27
Massachusetts	1,432	363	25
District of Columbia	518	131	25
Arizona	62	15	24
Connecticut	475	108	23
Vermont	58	13	22
Missouri	868	173	20
Iowa	222	43	19
Minnesota	948	183	19
Virginia	437	80	18
Kentucky	230	41	18
Michigan	1,342	237	18
Utah	127	21	17
Canal Zone	26	4	15
Colorado	332	46	14
Texas	755	105	14
Wisconsin	362	50	14
Florida	237	32	14
Kansas	244	30	12
Washington	290	34	12
Pennsylvania	1,895	215	11
California	1,993	198	10
Tennessee	474	47	10
Georgia	350	30	9
North Carolina	370	32	9
Alabama	144	12	8
New Hampshire	62	5	8
Louisiana	542	37	7
New Mexico	15	1	7
Oklahoma	149	9	6
Oregon	201	11	5
Nebraska	130	7	5
Indiana	281	14	5
South Carolina	104	4	4
Puerto Rico	79	3	4
Maine	37	1	3
Arkansas	68	....	....
Mississippi	22	....	....
North Dakota	11	....	....
Idaho	......	....	....
Nevada	......	....	....
Wyoming	......	......	....
	25,896	5,589	22

action on the subject of medical legislation as will bring this matter to the attention of Congress and the President, and request the passage of such laws as will regulate by national examining boards the right to practice medicine in the United States; and, furthermore, we would urge that the delegates to the American Medical Association be instructed to make it their purpose to secure the adoption of such action by the American Medical Association."

The resolution was defeated. The official policy of the American Medical Association regarding medical licensure in the United States is as follows: "Medical licensure in the United States is a 'state right' and is entirely under the jurisdiction of the governments of the individual states."[6] Considerable efforts are being made by many individuals to develop a uniform medical practice act. The licensing of many inadequately trained physicians by some states is just one of the many difficulties in getting states to adopt a uniform medical practice act.

The United States Information and Educational Exchange Act of 1948 which became effective in July, 1949, has encouraged foreign physicians to take training in the United States. Hospitals have been authorized to offer internships and residencies to foreign physicians after approval of their educational programs by the Department of State.

The fostering of educational exchange between friendly countries is certainly a worthy project. The responsibilities and opportunities of such a program must be carefully considered. The Educational Exchange Act has encouraged training in this country of foreign students in all branches of education. Every effort should be made to help the foreign school graduate and also to encourage him to return to his native country if he comes here on an exchange basis.

The foreign school graduate who remains in the United States following completion of his internship, whether in violation of his visa or not, should certainly be given an examination comparable to that given graduates of United States medical schools. Also his entire background should be given careful study.

The exchange of students and faculty members between schools in friendly foreign countries and the United States should be encouraged. There is a growing tendency in this direction.

Diehl[2] et al. have summarized the number and percentages of alien physicians serving internships and residencies in the United States (Tables 1 and 2).

TABLE 3.—*Graduates of medical schools in Canada examined for licensure in California*

Year	Examined	Passed	Failed
1939	23	23	0
1940	19	16	3
1941	23	23	0
1942	7	7	0
1943	6	5	1
1944	11	9	2
1945	10	10	0
1946	11	11	0
1947	28	28	0
1948	28	26	2
1949	18	17	1
1950	19	18	1
1951	20	20	0
1952	17	17	0
1953	16	16	0

Diehl[2] also noted that many of the foreign physicians are interning and taking residencies in hospitals other than teaching hospitals. Most of the desirable hospital appointments are taken by United States graduates on a competitive basis.

Hospitals in this country have a great responsibility to the public and to their attending physicians not to engage incompetent physicians and not to exploit the physicians they engage. Medicine is at a high level in this country and the standards must continually be elevated.

CANADIAN GRADUATES

Data in Table 3 indicate that California has been justified in accepting applications from graduates of approved Canadian medical schools to take the written examination on the same basis as graduates of California Medical Schools.

During the period from 1939 to 1953, 256 graduates of Canadian medical schools were examined by the California State Board of Medical Examiners. The proportion of failures was 0.039 per cent for the 15-year period.

In 1953 of the 7,525 examinees including 5,646 graduates of approved medical schools in the United States, 3.8 per cent failed. There were 121 graduates of approved Canadian medical schools and 4.1 per cent failed. The results of the examinations of graduates of the United States and of Canada are closely parallel.[6]

Between 1930 and 1953 inclusive, 20,372 physicians were examined on the basis of credentials obtained in countries other than the United States and Canada; of this number 10,504 successfully passed the examination and 48.4 per cent failed.[6]

TABLE 4.—*Foreign trained physicians examined for medical licensure in California*[7-22]

Year	Examined	Passed	Failed	Per Cent Failed
1938	22	19	3	13.6
1939	31	24	7	22.6
1940	47	37	10	21.3
1941	39	35	4	10.3
1942*	....	....	....	......
1943	29	19	10	34.5
1944	16	9	7	43.8
1945	25	17	8	32.0
1946	22	16	6	27.3
1947	32	23	9	28.1
1948	28	15	13	46.4
1949	65	34	31	47.7
1950	69	49	22	31.9
1951	90	56	40	41.7
1952	143	98	45	31.4
1953	148	95	53	35.8

*Not listed by states for that year.

TABLE 5.—*Foreign trained physicians examined for medical licensure in Illinois*[7-22]

Year	Examined	Passed	Failed	Per Cent Failed
1938	55	48	7	14.3
1939	96	79	17	17.7
1940	141	119	22	15.6
1941	119	78	41	34.5
1942*	....	....	....	......
1943	51	27	24	47.1
1944	29	13	16	55.2
1945	29	10	19	65.6
1946	42	19	23	54.8
1947	40	26	14	35.3
1948	60	27	33	55.0
1949	78	24	53	67.9
1950	100	46	54	54.0
1951	174	92	82	47.1
1952	313	153	160	51.1
1953	411	208	203	49.0

*Not listed by states for that year.

The number of foreign-trained physicians examined for medical licensure in California each year in the period 1938 to 1953 inclusive is shown in Table 4. Similarly the figures for foreign-trained physicians examined for medical licensure in Illinois are shown in Table 5. It will be noted that for the years 1938 to 1941, inclusive, the proportion of failures was much lower than in succeeding years. The quality of instruction given in the medical schools prior to World War II was probably of a higher degree than it was during and immediately after the war.

DISCUSSION

As was stated previously, well trained foreign graduate physicians are welcome and any recommendations as to selection of foreign graduates are not made with the aim of depriving them of the opportunity to practice here. Physicians who have had inadequate medical training should not be permitted to practice anywhere and these physicians should not be exploited and used as cheap labor by hospitals in this country. Medical standards and proficiency are at a high level in the United States and this is the result of years of effort and vigilance by many organizations and physicians. It is the obligation of all of us to see that the American people receive the finest medical care in the world and also to safeguard the rights of practicing physicians.

It is an impossible task to evaluate all the medical schools in the world and to keep these records up to date. In our own country this is done. Frequently a few graduates from non-accredited foreign schools are highly competent, just as some graduates from the accredited foreign schools are incompetent.

There are some who believe that a general examination, such as is given by the National Board of Medical Examiners, could be given to foreign graduates before they are permitted to begin any hospital training or apply for a license to practice in this country. This could apply to graduates of schools not listed on the foreign school accredited list as well.

It is the obligation of all medical licensing boards to constantly help in elevating and improving the standards of medical care. The medical practice acts must contain adequate provisions to safeguard the public and other physicians from having incompetent physicians thrust into their midst.

Since each state board has certain requirements regarding foreign graduates these rights could and should be independent of any action taken by any other agency giving a screening examination. The screening examination, if requested by a state licensing board, would be solely for the purpose of eliminating the incompetent and would be the type of examination one would expect 95 per cent or more of American medical graduates to pass upon completion of four years of medical school.

If all state licensing boards could agree upon this type of screening examination then there would be some uniformity as to method of selection. The foreign applicant who successfully passed the screening examination would still have to comply with all the requirements of the licensing board of the state in which he wished to practice. Until this is done there is no reason why each state licensing board could not require the foreign applicants to take the written examination which is required of graduates of medical schools in this country and use this as a method for selection or rejection.

The Council on Medical Education and Hospitals of the American Medical Association, the Association of American Medical Colleges, the State Medical Associations and the various hospital associations should immediately get together and study the problem of the foreign-trained physicians with regard to hospital training. Incompetents should not be employed as interns or residents. The hospitals have a great obligation to the American public and to practicing physicians as well in helping maintain high medical standards.

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The Place of Allergy in Medicine

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• *Much of the management of uncomplicated allergic disease has fallen within the province of the general practitioner and the specialist who does not limit his practice to allergy. This is the result of the simplification of standard techniques, the availability of excellent postgraduate instruction and the increasing quality of commercially prepared desensitizing extracts and other material. The newer drugs, particularly the antihistamines and the corticosteroids, have made the symptomatic care of patients with severe diseases of allergic origin less complicated.*

As a result, the physician who limits his practice to allergy has become more of a specialist, in that he is called upon only to deal with the more difficult cases. Since the practice of allergy involves many parts of the body and often overlaps other recognized specialties, it cannot fall into the classification of any one already recognized medical specialty. It is desirable, therefore, that an American Board of Allergy be established to set up criteria for practice and to examine and qualify applicants.

SOME FOUR or five years ago when the use of cortisone and corticotropin (ACTH) was new and they appeared exceedingly promising in solving the problem of the very sick and difficult to treat patients with allergic disease, a few allergists began to wonder what was going to happen to their practices, and indeed to the entire specialty of allergy. If a few tablets a day would relieve all of the symptoms of asthma, hay fever, eczema and urticaria, then why the allergist, the skin tests and the desensitization therapy? This was the second crisis in some five years, the first having been the popularization of the antihistamine drugs.

At about that time a well-known allergist noted that since the advent of the antihistamines his practice had fallen off considerably. Whereas in former years, he said, he usually had 100 to 150 new patients each ragweed season, after the popularization of the antihistamines he had as few as 25. In discussing his observations with other allergists at meetings and conventions he gained the impression that his experience was more or less universal. Now, he wondered, with the great advance publicity heralding the miracle producing powers of ACTH and cortisone what was going to happen to the rest of his practice, and indeed to the entire specialty of allergy. In a letter sent to a representative group of physicians practicing allergy he stated his observations and solicited their feelings about the matter. Particularly, he wanted to know what advice one was to give the younger men in the field and whether in the light of these new advances one could recommend the specialty of allergy to young physicians in training.

The response to his letter or questionnaire was exceedingly interesting. Without exception, all of the physicians replying displayed extreme unselfishness in hoping that the new miracle drugs would in fact solve the entire problem of the very sick persons with allergic disease. Most of them admitted a decline in their practices; a few seemed to feel that the new medicines would eradicate entirely the need for the allergist as a specialist. On the whole, the response to his letter was gloomy. Some of those who replied said that they were doing more general medical practice along with their specialty. Several strongly advised against allergy as a specialty for the younger men. Others used the questionnaire as a jumping off point and expressed their views about indiscriminate teaching of allergy to general practitioners, about lax rules of admittance to the national allergy societies, and about the encouragement given to pharmaceutical houses' practicing allergy.

One interesting sidelight was the admission that the late Warren Vaughan, as far back as 1932, had confidently expected the imminent discovery of some magic drug which would restore allergic balance and thus do away with the need for specialists in allergy. That was the reason, according to one of his former students, Dr. Vaughan had never limited his practice to allergy. In this connection, too, one of the pioneer allergists, an author of a currently popular textbook, stated in response to the letter that he, too, is convinced there is some underlying mechanism for allergic persons which, once found, would provide a means of treatment much as is available for diabetic persons and end the necessity for extensive

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skin testing and trying to find out to what a patient is definitely and specifically sensitive. He implied, however, that neither the antihistamines nor the new hormones were the answer.

At present, after some four or five years of ACTH and cortisone and some nine years of the antihistamines, it is obvious that the practice of allergy was never endangered. In fact, if anything, these new medicines have improved the specialty and made us better physicians. Certainly, the ability of allergists to manage severe allergic disease has been enhanced by the addition of these new drugs to the pharmacopeia. Some of us wonder at times what we used to do for the patient who had severe urticaria before the days of the antihistamines. Also, how much more difficult it was to deal with intractable asthma before the days of the corticosteroids and the corticotropins.

It must be admitted, however, that there has been a subtle change in the practice of the specialty of allergy during the past several years. Although this change may be coincidental with the appearance of the new drugs, it is certainly not a result. Nor can the change be attributed to any one factor such as the increasing number of short courses in allergy available to general practitioners, or the relaxation of standards for admission to national allergy societies, as has been suggested. Rather, the change has been merely a part of the general advance in the entire field of medicine. Allergy, along with advances in the other specialties, has become more than a mere technique, a mere methodology. It has indeed become a specialty—as much so as dermatology or obstetrics or surgery. Allergy has come of age.

In the early days of allergy, the pioneers in the field were primarily "laboratory men." The early allergists were for the most part pathologists, bacteriologists and immunologists who were attracted to the field because of the underlying immunological mechanisms. Since little was known about the allergenicity of the pollens in the vicinity, these pioneers had to become amateur botanists or associate themselves with local professional botanists in order to survey the surrounding area with regard to allergenic pollens. There are references in the literature to pollen surveys conducted by Piness and Miller in Southern California in 1926 and by Albert Rowe in 1927 on the eastern shore of San Francisco Bay. In addition, the office of a pioneer allergist had to include the services of a good protein chemist because the techniques of extraction, preparation, standardization and storage of allergenic extracts were still in the process of perfection. Even problems that now appear elementary, such as sterilization of syringes and needles and proper washing of vials, had to be worked out in the offices of these early allergists. The office of the early allergist was by necessity a botanical and chemical laboratory as well as a miniature pharmaceutical manufacturing plant. The techniques usually attributed to the practice of medicine, such as diagnosis and treatment, were merely a part of the function of such an office.

Very few physicians could afford the equipment and personnel needed to make an office serve the function of a botanical laboratory, a chemistry laboratory and a pharmaceutical manufacturing plant, and it was necessary therefore to refer patients with allergic disease to those who could. A patient with simple seasonal hay fever could not get adequate medical treatment in the early days unless he went to a specialist in allergy.

As with all new specialties, great advances, particularly in the technical aspects, were made rapidly. Several of the pioneer allergists, who had become good botanists and chemists went into the botany and chemistry business. One of the largest of the firms now selling allergenic material to physicians is one which originated in the office of a physician. Pharmaceutical houses, seeing a new market, entered the business of supplying allergenic extracts and materials to physicians who could not afford to hire technical help to prepare them or preferred not to. Using the great know-how of the commercial pharmaceutical laboratories, these firms made great strides in advancing the techniques of preparing potent extracts. Probably the most active and best informed botanists specializing in allergenic pollens are in the employ of such commercial firms.

All this brought the practice of allergy closer to the average physician. No longer did a well trained and interested man require an unusually large investment in manufacturing supplies and the services of a botanist and chemist in order to apply his knowledge to the diagnosis and treatment of allergic disease. He could purchase his material and confine his medical efforts to diagnosis and treatment just as every other physician in any other specialty did. This brought into the field additional physicians, interested in allergy, trained in botany, immunology and general medicine as well as in the numerous ramifications of allergic disease.

To be sure, this easy availability of allergenic extracts and other material encouraged physicians who did not have the necessary special training to practice a brand of medicine which was far from ideal. In order to promote the sale of extracts, some pharmaceutical houses went into what might be called a mail order allergy business. Physicians might be supplied with a kit of testing antigens. They then could forward the results of the tests to the pharmaceutical company, which would then prepare an extract based on the results of the tests and send it to the physician with dosage instructions. The disadvantages and dangers are obvious. Yet, this form of therapy must have been at least successful enough in a large group of uncomplicated cases of allergic disease to create a lucrative business for the supplying company and to reduce to some extent the number of cases of simple seasonal pollinosis previously seen exclusively in an allergist's office.

Thus there are at present two main types of allergy practice. The first is that of the physician who limits his practice to allergy. Some of these make their own extracts; others purchase concentrates from commercial sources and make their own mixtures and dilutions. By far the largest type of allergy practice is that done in the office of a general practitioner, a pediatrician or an ear, nose and throat specialist. This is, in general, the practice of the part-time allergists, who may have taken a short course somewhere, or may have attended several meetings of one of the national allergy societies. They get much of their information from the brochures of the mail order pharmaceutical houses, they let these firms decide what extracts to use for treatment and follow a dosage schedule standardized and limited by fear of malpractice suits and the rigid safeguards set up by the national Pure Foods and Drugs Administration.

Actually, the simplification of the techniques of skin testing and treatment and the easy availability of needed materials has made more of a specialty of allergy. Trained specialists in allergic diseases no longer deal with a patient with hay fever or asthma merely because the referring physician cannot afford a chemist to make extracts but rather because the patient is very sick and the problem difficult to solve. The allergist is called upon because the referring physician really needs help. The specialist no longer deals with merely the average case of allergic disease. To him come the special cases. He is, in fact, a specialist.

And that is as it should be. There are not enough allergists in this country—probably can never be—to care for all the persons with allergic disease. No matter how unsatisfactory the so-called mail order practice is, it must be admitted that there are a great many persons with uncomplicated cases of allergic disease caused by inhalants, many of them seasonal, who are greatly benefited by treatment with common local pollens, avoidance of animal hair and hyposensitization with house dust. In general, despite the obvious shortcomings, this kind of treatment, which is available to a much larger segment of population than ever before, is better than the absolute lack of management of allergic disease previously encountered.

Where do we who limit our practice to allergy stand at present? Where does the practice of allergy stand? True, we no longer see as many of the simple cases of hay fever which respond readily to immunization therapy. Part-time allergists are seeing more and more of these. Some of the asthmatic patients who used to be sent to allergists because of the difficulty in managing them symptomatically, do not reach us because of the success of the steroids. What is left for the allergist? Actually, the allergist now is more of a specialist than he ever was before. He is no longer a "laboratory man," but rather a physician who consults with other physicians on difficult cases. Instead of the corticoids decreasing the utility of the allergist they have in effect increased his usefulness, for often now he is called upon to advise on the proper use of these new compounds.

The allergist of today is a specialist in the treatment of diseases based on the mechanism of hypersensitivity. This group of diseases is increasing almost daily. We are not merely internists who treat hay fever and asthma, nor are we just pediatricians who treat these diseases. Our field embraces practically every organ of the body and we must recognize allergic disease of the eye as well as of the skin and of the lungs. Since hypersensitivity diseases are frequently affected by nonspecific factors such as infections, emotions and glandular misfunctions, we must be experts in infectious disease; we must be conversant with psychiatry; we must be good practical endocrinologists. We are internists and pediatricians; we are otolaryngologists and dermatologists and immunologists. Our province includes occupational disease problems and medicolegal aspects of such diverse fields as air pollution and skin sensitization phenomena.

The place of allergy in the broad field of medicine, then, is that of an independent specialty requiring specific training and experience in somewhat unrelated fields. Obviously, the practice of allergy has reached a stage where an independent board of its own is indicated. An "American Board of Allergy" would encourage younger men to enter the specialty, for it would bring about proper recognition of the greatly increasing and interesting field. An "American Board of Allergy" would set up standards of training and experience; it would examine and qualify specialists in the practice of allergy. Part-time allergists would continue to deal with the patients with symptoms of seasonal inhalant allergic disease. The specialist, a diplomate of the "American Board of Allergy," would rightfully take his place in the framework of medical specialists as the physician most qualified to care for the patient who for some reason, perhaps hereditary, is subject to a variety of illnesses affecting any organ of the body and based on the phenomenon of hypersensitivity.

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Accidental Injuries to Women

Obstetrical and Gynecological Problems Associated With Damage Claims

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• *Women who have been injured should be examined for possible gynecological injury within 24 hours of the accident.*

Injuries to pregnant women do not usually cause an obstetrical crisis. When such an event does occur, there is positive evidence which relates it to the accident if there was such relationship.

Metrorrhagia and menorrhagia are common sequelae of physical and psychological injury, but they are of temporary nature in cases in which there is no demonstrable pathologic change upon pelvic examination.

Uterine prolapse, cystocele and rectocele are not caused by a single injury except in extremely rare instances. When vaginal vault injury has occurred as a result of a single injury, there is plentiful evidence of severe tissue damage.

THE GENERALIZED EMPLOYMENT of women in all phases of industry in recent years has imposed new problems in the field of gynecology and obstetrics. The U. S. Department of Labor reported 19,726,000 American women employed at present — 56,000 more than in the "peak" year of 1945. Their employment exposes them to multiple situations of accidental trauma both on and off the job and accidents occurring in such circumstances usually involve insurance claims directly or indirectly.

Since the liberalization of industrial insurance coverage in the past 25 years, and the nearly universal insurance coverage by the general public, almost all accidents are followed by a claim on public liability, workmen's compensation, unemployment or health insurance.

Often the injury done in accidents is so borderline in nature that the insurance companies are reticent to acknowledge their liability until universal understanding and acceptance has clearly outlined their logical obligation.

Herein are outlined some of the conditions which confront obstetricians and gynecologists following accidental injury. Also discussed are conclusions and obligations these conditions imply. It is hoped, by this presentation, to crystallize thoughts and prepare the groundwork for a broad understanding.

Any injury to a pregnant woman immediately raises a liability problem to both the expectant mother and the child. In general, there are five phases of this problem: Abortion, premature labor, abnormal labor, cesarean section and toxemia.

Frequently a claimant ascribes abortion to any injury that may have occurred regardless of the type or severity of the injury. Actually, it is rarely caused by an injury and several articles have been written concerning the improbability of trauma as the principal cause of abortion. Diddle[4] cited a case in which a 19-year-old girl was beaten, choked and thrown from an automobile. She had severe injuries including multiple fractures, even serious cerebral hemorrhages. When she died five days later, autopsy was carried out and the placenta was observed to be normally attached, the amniotic fluid clear, and the uterus to contain a normal male fetus 3.2 centimeters long which showed no maceration. The meticulous work of Hertig and Sheldon[5] on 1,000 consecutive spontaneous abortions showed embryological imperfections in 47 per cent of cases. In 12 cases of this group there was a prior history of trauma and in 11 there were abnormalities in the abortus. In one case of the 1,000 cases, abortion following an automobile accident was associated with a normally developed ova. Berle and Javert[2] reported similar observations.

The prerequisites for ascribing abortion to a specific injury have been outlined by Fisher in Rosen's book on Therapeutic Abortion:[7]

1. The course of the pregnancy before the accident must have been normal.

2. Pathological examination of the abortus (fetus and membranes) must reveal no evidence of abnormal development.

3. The time interval between the alleged injury and the onset of bleeding or other signs of inevi-

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table abortion must have been a matter of minutes, or at least a few hours.

Premature labor also must begin soon after the alleged injury, and there must be physical evidence of the cause such as retroplacental clot, placental separation, or premature rupture of the membranes. In most instances there would be external contusions or bruises if the injury were severe enough to bring on labor. Spontaneous premature labor is common in women who have surrounded themselves with the maximum precautions against this accident. In many instances it has occurred while the patient was confined to bed as preventive therapy. However, one must be cognizant that premature labor sometimes is induced by severe abdominal injury or violent jarring. Such cases meet the basic criteria outlined above, for the resultant labor follows shortly after the accident and is accompanied by signs and symptoms such as uterine contractions or bleeding, or both. Unless these symptoms subside promptly, there follows evidence of effacement and dilation of the cervix. Once these processes begin, it is unusual for the labor not to progress to the expulsion of the fetus.

ABNORMAL LABOR

Abnormal labor and its complications include placental abruption, placenta previa, abnormal fetal presentations and prolapse of the cord. Of these conditions, placental abruption is the most likely to follow accidental injury. The symptoms suggesting this condition should start immediately after the injury and at delivery there should be substantiating evidence such as retroplacental hemorrhage or clot. Placenta previa, on the other hand, is a predetermined condition which cannot be altered by trauma from any accidental injury. It is the author's opinion that the symptoms resulting from placenta previa, even though temporally associated with injury, should not be considered "aggravation" in the liability interpretation. Painless bleeding, which is indicative of placenta previa, is a condition which must occur at a certain period in pregnancy that is complicated by placenta previa, irrespective of the coincidence of accidental injury.

Intrauterine death of a fetus may be caused by external injury but to ascribe it to that cause there must be real evidence such as contusions or bruises on the fetus or evidence of severe injury to the mother. In addition, there must be intrauterine evidence of a cause of fetal death. A recent decision in the Superior Court of Los Angeles established a fair precedent in the denying of a claim of accidental intrauterine fetal death, due to injury, based simply on the argument that "there was no other reason for the fetus to die." Wright[9] pointed out that four of eight women who had penetrating wounds of the uterus while pregnant, delivered normally from five days to four and a half months later.

Abnormal fetal positions cannot be the result of external injury.

Cesarean section is almost never indicated as a result of trauma unless the external injury is of such an extent that the uterine muscle or placenta is damaged. Intrauterine or intra-abdominal hemorrhage is almost the only indication for cesarean delivery after trauma. As was pointed out by Wright,[9] the purpose of cesarean section is to permit delivery of a live baby. When it fails to do so the operation is not justified as an entity. It is occasionally necessary to carry out exploratory laparotomy on a gravid patient after injury, but only when intra-abdominal hemorrhage is suspected or evident.

There have been contentions that pelvic fractures prevent child bearing because of the resultant deformity. This conclusion is fallacious, for cesarean section can compensate for the pelvic disproportion.

Toxemia of pregnancy is a metabolic toxic condition and is not caused by external trauma.

In a nonpregnant woman there are more conflicting problems. Often it is difficult to determine whether pain in the back is owing to injury to genital organs or to orthopedic and/or urological causes. In general, however, if the pelvic organs are normal and mobile, they can be absolved as the cause of backache. The back pains which follow automobile accidents are usually orthopedic in nature, but can be psychologically transferred to the pelvic organs by simple suggestion. Once a patient has associated such pains with the pelvic organs, it is difficult to convince her that all the problem does not stem from, for example, a "tipped uterus." This even though she may have been aware of the tipped uterus for many years.

Retrodisplacement of the uterus can be caused by trauma, but as Andrews[1] pointed out, to ascribe the condition to trauma these conditions should be met: The symptoms must follow the accident immediately, vaginal bleeding must be present, there must be pelvic pain and pressure and the fundus must be in the cul-de-sac. The symptoms must be relieved when the uterus is replaced anteriorly, and recovery must follow directly thereafter. The injury most likely to cause retrodisplacement is a fall on the buttocks or an abdominal blow while the patient is in the squatting position with a full bladder.

VAGINAL BLEEDING AFTER INJURY

Abdominal blows from moving parts of machines do cause injury to the female genital organs but such injuries are temporary in nature. Vaginal bleeding is quite common following injury (physical or psychological) and is not related to the severity of the trauma. It is very common for a woman to complain of having received some form of injury and of having a heavy vaginal flow of blood and mucus immediately afterward. Upon pelvic examination in such circumstances, there may be no considerable pathologic change noted. In one instance in which dilatation and curettage was done on a postmenopausal woman because of vaginal flow following such an injury, atrophic endometrium was noted. There was no other evidence of trauma within the vaginal vault. Bleeding of this type usually clears spontaneously, although occasionally some medical therapy is necessary. Menometrorrhagia may last through two menstrual cycles. If this bleeding persists beyond 60 days, further diagnostic studies are indicated to rule out organic disease. If infectious disease or the residual effect of infection is present, trauma is eliminated as an etiological factor.

In a questionnaire answered by 277 gynecologists only five cases of hemoperitoneum as a result of injury were reported, indicating the rare necessity for surgical intervention in cases of abdominal injury followed by vaginal bleeding. According to the replies from this questionnaire, most physicians observed relief from the injury within two weeks. In only one case, reported by Te Linde,[8] was bleeding that lasted more than one month reported. Here again it must be concluded that if the abdominal blow is severe enough to cause serious injury to the internal organs, there must be external evidence of this injury on the abdominal wall or about the body.

PSYCHOLOGICAL INFLUENCES ON MENSES

One must remember that psychological influences profoundly affect the menses in diverse manner. Following minor or moderately severe injuries there can be confusion between the physical effects of the trauma on the internal genitalia and the psychological manifestations of menstrual aberrations. In many cases presented to the insurance companies, both on industrial accident injury and public liability coverage, there are claims for hysterectomy done because of bleeding of that kind. Most of these claims are based upon very nebulous evidence of indication for the operation. Usually the pathologist's report at the hospital gives very sketchy evidence of a pathological change, and a critical review of the history, physical and laboratory data does not substantiate a conclusion that immediate operation—or "emergency" operation—was necessary. It is not unusual to have a claim for total hysterectomy presented in a case in which the pathological report indicates the menorrhagia was caused by a polyp or fibroid tumor. The surgeon in such cases often, without hesitation, signs a report to the effect that the entire problem was initiated by a minor injury and the operation was necessary to arrest a serious hemorrhage—even though the hemoglobin content of the blood may have been 14 gm. per 100 cc. before transfusion.

UTERINE PROLAPSE, CYSTOCELE AND RECTOCELE

The problems of uterine prolapse, cystocele and rectocele have become a part of the insurance picture. To determine what is the thought upon this subject the author mailed a questionnaire to 500 gynecologists who are members of the American Board of Obstetrics and Gynecology throughout the United States. Of 277 physicians who replied only 17 felt that vaginal prolapse and cystocele could be caused by abdominal or vaginal injuries. It was the opinion of several of those who answered that these injuries were, by definition, not possible. However, the author observed one patient in whom it appeared that cystocele and rectocele were caused by a straddle fall. In the involved tissue there was evidence of hemorrhage and contusion typical of recent injury. It was recommended to the insurance company that it accept the responsibility for this claim, and the condition was surgically repaired. In most instances, however, the cystocele or prolapse is noticed only some time after the injury and there is no evidence at the examination of acute injury. It is in such cases that the author concurs with the majority of the gynecologists who replied to the questionnaire, feeling that uterine prolapse or cystocele and rectocele are not caused by sudden intra-abdominal increase in pressure. Burrows,[3] in experiments on mice, noted evidence pointing to congenital weakness as a cause of prolapse. Other literature and textbooks concur in the belief that these conditions arise as a result of congenitally weakened structures which give inadequate support as a result of a debility of the tissues. It is not logical to assume that such a herniation can occur as a result of a single insulting traumatic blow unless there is evidence of real tissue damage to the anterior and posterior vaginal vault.

Along with this same consideration of vaginal prolapse, one occasionally reviews a claim wherein stress incontinence has developed following some abdominal or vaginal injury. Here again the burden of proof should be placed upon direct and conclusive evidence of tissue damage in the area. In a recent study by Nemir and Middleton[6] it was found that 40 per cent of nulliparous young women in college had stress incontinence frequently.

Abdominal hysterectomy and oophorectomy sometimes is done in cases in which the patient complains of pelvic pain following abdominal injuries or vaginal injuries, but in cases of that kind that have been reviewed by the author, almost never was there pathological indication which would substantiate claims that the injury necessitated operation. The usual claim places great stress upon intra-abdominal adhesions and frequently places great blame upon adhesions to the abdominal wall which lie at the site of a previous operation. A careful and impartial review of the operative records and pathological findings will usually reveal obvious and apparent evidence of an old infection or a previously inadequately performed operation. It is difficult to outline a physiopathological pattern which might follow an injury to the abdominal wall that would give rise to intra-abdominal adhesions resembling those of an old pelvic inflammatory disease.

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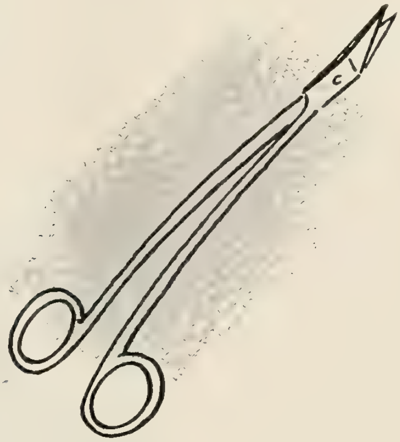

A Technique for Piercing Ears for Earrings

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THE WEARING OF EARRINGS is an ancient custom which has survived through the centuries. The simple operation of piercing the ear lobes has caused enough complications to draw notice in the medical literature. Painful scars or keloids sometimes develop; the sinus tract created is not always large enough; false passages occur in some cases and sometimes the operation fails completely. Also, if suture material is used, it must be worn about ten days and is unsightly.

The technique described here requires no injection of local anesthetic agent, yet is painless. The patient leaves the office wearing earrings at once.

The technique utilizes earrings made up as illustrated (Figure 1). Each earring has a straight shaft, slightly larger in diameter than that on an ordinary earring. About two-thirds of the shaft is smooth; the terminal third is threaded to receive a guard. The end of the shaft is ground and sharpened to a triangular point as illustrated. The head is concave to facilitate the thrust of the thumb for insertion, and the disk edge of the head is ornamentally milled for easier grasping. Any competent jeweler can make them of gold or silver.

The earrings are disassembled and soaked in alcohol. The patient's ear lobes are cleansed with alcohol. After a dot has been placed with an indelible pencil at the point at which the lobe is to be punctured, the lobe is squeezed between the thumb and the index finger for about a minute, which completely anesthetizes it for a moment by exsanguination. Quickly a cork or a small cotton pad is placed behind the ear lobe and the shaft of the earring is pushed through the lobe at the marked site. The sharp shaft penetrates easily through the pale ear lobe and usually no blood appears (see illustrations). The final step is to screw the guard over the threaded end to keep the ornament secure and protect the patient from the point. The operation is then repeated on the other side.

The patient is instructed to apply a little alcohol to the front and back of each ear lobe daily and to wear the rings continuously for several weeks. At the end of that time she is to return to the office, where the special earrings are withdrawn. She may then replace them with her own.

450 No. Bedford Drive, Beverly Hills.

Submitted February 24, 1955.

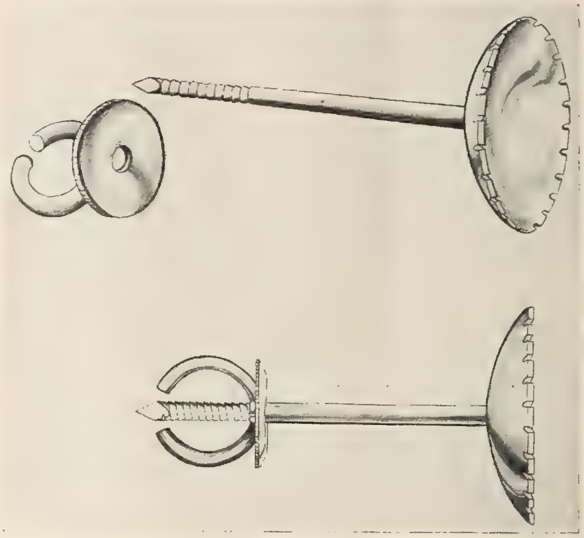

Figure 1.—Construction details of earring.

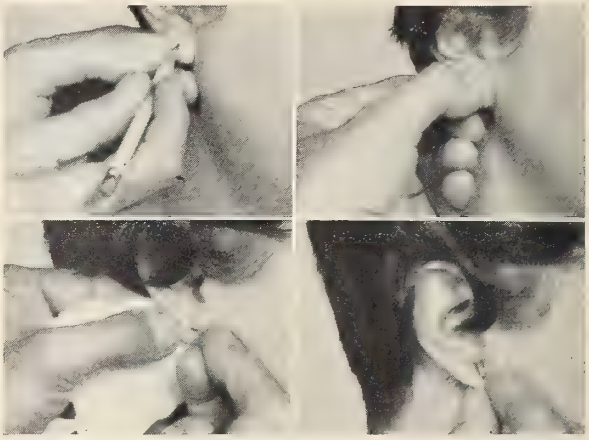

Figure 2.—Steps in procedure: *Upper left,* marking the puncture site; *upper right,* pressure between thumb and index finger exsanguinates and anesthetizes puncture site; *lower left,* making the puncture; *lower right,* temporary earring in place with guard screwed over sharp tip.

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CASE REPORTS

Adenoma of the Pancreas with Hyperinsulinism, Associated with Low Sugar Content in Spinal Fluid

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THE SYNDROME of organic hypoglycemia has long been recognized and is now well established.[3] Recently much attention has been given to a possible relationship between hyperinsulinism and various neurological disorders. This includes not only the usual cerebral manifestations[5] but also the more obscure relation to disorders such as multiple sclerosis[1] and progressive spinal muscular atrophy.[2]

The clinical and pathological entity of hyperinsulinism due to an adenoma of the islet cells of the pancreas has been recognized more frequently in recent years. Howard[4] in 1950 reviewed the literature and collected reports of 398 cases. The present case is reported in view of the manner in which the diagnosis was established.

REPORT OF A CASE

The patient, a 33-year-old white woman, was admitted to the Huntington Memorial Hospital in Pasadena at 3:00 p.m. on June 26, 1953. The patient's husband gave the history. He said that they had been married for 19 years. They had been in California less than a week.

The present illness apparently started one year previously when the patient collapsed one forenoon while at hard physical work in the fields on a farm in Tennessee. She was unconscious for two days. A diagnosis of "stroke" was made and she was admitted to the local hospital. She soon returned home and remained asymptomatic until a second episode four weeks before the present admission. At the time of the second episode, while working in the sun one morning the patient began to talk irrationally, became very excitable, and then lapsed into unconsciousness. She then began to have generalized convulsions and was taken to a university hospital for study. The husband stated he was told that the patient in all probability had either a brain tumor or a ruptured blood vessel and that operation had to be considered. A pneumoencephalogram made at that time was reported as normal. The husband said that the patient did very poorly after the pneumoencephalogram until intravenous feeding was carried out. Thereafter she made a rapid recovery and was discharged home after six days of hospitalization. She remained well upon returning home and a week before the present admittance she helped drive the family across the country to California. The third attack started about 11 a.m. on the day of admission when she went to sleep and her family could not arouse her.

At the time of admittance the patient was awake and able to answer questions, but her speech was slow. She kept repeating she was "sleepy" and "can't remember much." However, she said that she heard a ringing in her right ear, that she saw double and that she believed the left side of her mouth drooped.

The blood pressure was 115/70 mm. of mercury, the temperature 96° F., the pulse rate 50 and respirations 18 per minute. The heart and lungs were normal to auscultation. Upon abdominal examination a low midline healed surgical scar was noted. The pupil of the right eye was slightly larger than the left. There was slight left facial weakness. The optic discs were well defined. Visual fields and acuity were grossly normal. There was no nystagmus and no obvious weakness of the extraocular muscles. There was no motor or sensory defect in any extremity. Deep tendon reflexes were active and equal bilaterally. No pathological reflexes were present.

Lumbar puncture was performed upon admission. The initial pressure was 110 mm. of mercury. The cerebrospinal fluid was crystal clear. Skull and chest x-ray studies and an electroencephalogram were ordered for the following day.

The patient ate fairly well at supper. Through the night the skin was warm and moist, and the blood pressure remained about 110/70 mm. of mercury. The pulse rate, however, dropped to 48 per minute on one occasion.

The following morning the patient awoke and appeared normal to the nurse who observed her. There was no note made regarding breakfast. The patient was sent to have x-ray films and an electroencephalogram. She gradually became more restless, grew antagonistic and tried to strike the nurses. By 11:30 a.m. the day following admission she was vomiting, having constant tremors, did not respond well and complained of feeling cold. The pulse rate was 56 and the blood pressure 100/65 mm. of mer-

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Submitted March 17, 1955.

cury. At this time the laboratory report on the spinal fluid removed the previous day was received. Two cells were seen. The Pandy test reaction was "faint trace." The total protein content was 29 mg. per 100 cc. and the sugar content 26 mg.

Blood was immediately drawn to determine the sugar content and 1,000 cc. of 12.5 per cent glucose in water was given intravenously. The patient was irrational, was sweating profusely and had tremor of the right hand. Positive Babinski response was evoked bilaterally. The pulse was strong, bounding and slow.

Within thirty minutes after the glucose solution was given the patient was wide awake, alert, oriented and friendly, but amnesic for the entire period of hospitalization. Neurological examination then was "negative." The blood sugar content was reported as 24 mg. per 100 cc. Subsequent questioning of the patient elicited the following additional facts: She could not remember whether or not she had had breakfast on the occasion of the first episode a year previously and was very vague regarding the morning of the present admission. She remembered distinctly, however, that at the time of the second episode, four weeks before this admission, she had had to kill and pluck a goose, which she had never done before, and as she was afraid it might upset her she had purposely refrained from eating breakfast.

She denied any increase in hunger but believed she had gained some weight over the previous year. It was also learned that at least two of the three episodes had concurred with the onset of menstruation.

The medical investigation was continued. No abnormalities were noted in x-ray studies of the skull and the chest. The electroencephalogram had not been made on the morning after admission because of the belligerence of the patient, but one that was made two days later was normal. Urinalysis and complete blood count were within normal limits. Results of a cephalin-cholesterol flocculation test and a bromsulfalein test were within normal limits. The gold curve and Kolmer test of the spinal fluid were normal. A glucose tolerance curve revealed a fasting blood sugar of 60 mg. per 100 cc., which rose to 137 mg. in one hour, but which fell to 43 mg. in four hours. Breakfast was withheld one morning to observe the effect of a prolonged fast, and at 11:45 a.m. the blood sugar content was reported as 32 mg. per 100 cc. The test was terminated at this time although the patient remained asymptomatic.

It was felt that the patient probably had true organic hypoglycemia, probably on the basis of a functioning adenoma or carcinoma of the islet cells of the pancreas. On July 7, 1953, laparotomy was performed (J.M.M.). A solitary nodule 2 cm. in diameter was found on the inferior border of the pancreas about 6 cm. from the tip of the tail. It was excised. It was soft and encapsulated (Figure 1). Upon microscopic examination of sections (Figure 2) it was observed to be a typical Langerhans' cell neoplasm with connecting cords of cells forming a distinct plexiform pattern. There was no evidence of malignancy.

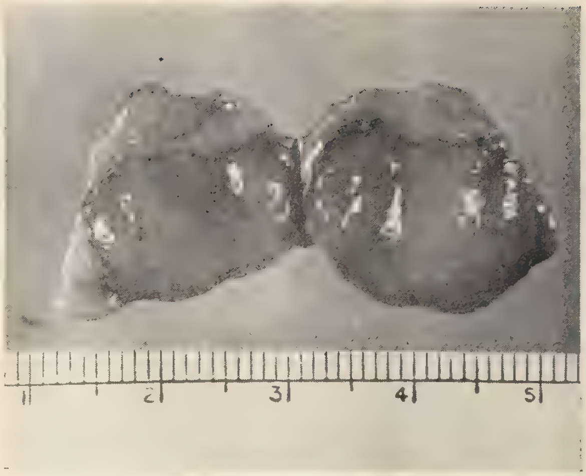

Figure 1.—Fresh gross specimen, sectioned through center. (The measure shown is in centimeters.)

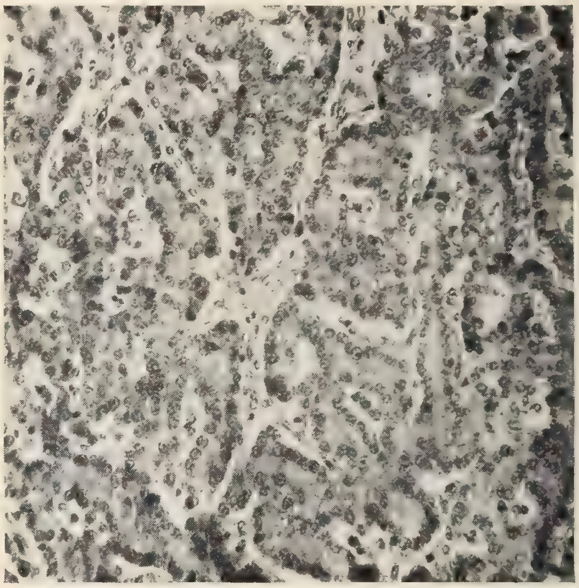

Figure 2.—Microscopic picture of adenoma, ×180 (hematoxylin and eosin stain).

The patient made uneventful recovery and was discharged from the hospital on the eighth postoperative day. She reported 14 months later that she had remained well and free of all symptoms.

COMMENT

This case illustrates once again the need for keeping in mind the possibility of the hypoglycemic reaction in unusual and unexplained acute neurological problems. In this instance the fortunate report of low content of sugar in a spinal fluid specimen obtained some 18 hours before the patient went into the typical hyperactive state of "insulin shock" is of interest.

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The Budd-Chiari Syndrome Complicating A Case of Polycythemia Vera

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THE LITERATURE contains reports of only 123 cases[9, 10] of the Budd-Chiari[4, 5] syndrome and only nine of them were associated with polycythemia vera. In only about one case in ten was the diagnosis made antemortem. At the Los Angeles County General Hospital only two cases were observed in 50,000 autopsies. At White Memorial Hospital not a single case has been observed in over 200,000 admissions and 3,800 autopsies. The department of pathology at Stanford University Hospital[1] reported five cases in 11,979 autopsies and at the Mayo Clinic[8] in the period 1910 to 1939 there were 20 cases, 16 of which were coincidentally discovered at autopsy and apparently had not produced symptoms. Up to 1948 Dodd[6] was able to find only seven cases reported in children. Altschule,[2] in 1939, reported a case of Chiari's syndrome complicating polycythemia vera and commented on eight other cases in the literature. So far as could be determined, there have been no other cases complicating polycythemia vera reported to date.

The disease may be of either acute or chronic form. The acute form is rather sudden in onset with vague and obscure abdominal pains, frequently associated with nausea, vomiting, abdominal guarding and even shock. Ascites is quite common. Patients with the acute form go into a coma and delirium and die in one to four weeks. Chronic cases are more gradual in onset, with indigestion, epigastric distress and rapidly recurring ascites. The liver is enlarged in all cases, acute or chronic, and the spleen is usually enlarged. Jaundice is minimal when it does occur, and that not very frequently. Patients with the chronic form may live for years, but apparently it is always fatal and most patients die of liver failure.

The cause of the disease is obscure. All cases reported have been characterized by acute and chronic thrombosis in the hepatic veins. Three sites of obstruction have been noted. In some cases it is in the inferior vena cava primarily, and extends into the hepatic veins; in others at the osteum of the hepatic veins, and in others it is confined to the hepatic veins themselves. The same syndrome can be produced experimentally in animals by ligating the inferior vena cava just above the hepatic veins.[3] The syndrome has been associated not only with polycythemia vera but also with sickle cell anemia, pregnancy, leukemia and primary and metastatic tumors in the upper abdominal region.[7]

REPORT OF A CASE

A 37-year-old white woman was admitted to St. Mary's Hospital, Long Beach, California, May 12, 1954, and died May 15, 1954. The complaint on admission was progressive swelling of the abdomen for one month, associated with flatulence, pyrosis, anorexia, lassitude and fatigue. She denied any consumption of alcohol in the past and no nausea or vomiting had been noted. She volunteered that she had noted increased flushing of the face during the past year. Inquiry elicited no symptoms indicative of systemic abnormalities except as applied to the endocrine system. Catamenia occurred at the age of 13. Periods occurred every 28 days and lasted about three days. The patient said that she had always had "some trouble" at the time of menstruation and for a number of years had received hormone injections. There had been no missed menstrual periods or irregularity for the past few years. The patient had been pregnant three times and had borne three children. She had noticed growth of coarse hairs on her chin for several years.

The patient was fairly well developed and well nourished. She appeared to be the age stated. The temperature was 98.6 F., the pulse rate 80 and respirations 20 per minute. The blood pressure was 118/76 mm. of mercury. There was some stubble of hair growth on the chin. The abdomen was distended and there was a definite fluid wave and shifting area of dulness to percussion. No definite masses could be felt through the ascites. There was some evidence of dilated veins over the lower abdomen.

Paracentesis was carried out the evening the patient was admitted and 2000 cc. of amber fluid was withdrawn and sent to the laboratory for study. After the fluid was removed a mass was felt in the abdomen four or five fingerbreadths below the costal margin. It was only slightly tender and descended with respirations, and it was thought to be the liver or a tumor in the upper abdomen. No abnormalities were observed in a pelvic examination after paracentesis.

An x-ray film of the chest on admission was essentially normal. In a plain film some haziness of the lower abdomen, suggesting ascites, was noted, but no other abnormality could be demonstrated. An excretory pyelogram and roentgen

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studies of the upper gastrointestinal tract were reported normal.

The hemoglobin content was 20.7 gm. per 100 cc. of blood, the color index was 0.99 and erythrocytes numbered 7 million per cu. mm. Leukocytes numbered 16,000 per cu. mm. — 83 per cent neutrophils (17 per cent stabs and 66 per cent segmented), 14 per cent lymphocytes and 3 per cent monocytes. The urine was yellow and cloudy with specific gravity of 1.028, pH of 5.0, albumin content 3 plus. Reaction for sugar was negative. There were 5 to 6 leukocytes and 4 to 6 erythrocytes per high-power field. The content of epithelial cells was moderate and of bacteria 1 plus. Bromsulfalein retention was 72 per cent after 45 minutes. Thymol turbidity was 1.3 Maclagan units. Total serum protein was 6.8 gm. per 100 cc.—4.7 gm. of albumin and 2.1 gm. of globulin.

The pathologist reported as follows on the ascitic fluid removed: "Button revealed no evidence of tumor cells, but a Papanicolaou smear revealed clusters of abnormal cells believed to be tumor cells in the abdominal fluid." Intra-abdominal malignant disease was suspected and exploratory laparotomy was carried out through a left paramedian incision. About three liters of fluid of the same kind previously withdrawn by paracentesis was removed. The liver was enlarged and the edge was about four fingerbreadths below the costal margin. The left lobe was sharp edged, as was part of the right lobe, but the liver was dark and very firm and rubbery. The liver could be compressed between the thumb and forefinger like a piece of firm rubber, and when released it would spring back into its normal shape. The spleen was also slightly enlarged, and what seemed to be two small stones could be felt in the gallbladder. The pelvis was essentially normal except for a small cyst on one ovary, which was incised. No definite evidence of malignant disease could be found anywhere in the abdominal cavity. The pathologist was called in to visualize the abdominal findings. After a biopsy specimen of the liver was taken the abdomen was closed. The postoperative diagnosis was hepatomegaly and splenomegaly with portal hypertension, secondary ascites of cause not determined, and chronic cholecystitis with cholelithiasis. During the exploration the possibility of Chiari's syndrome was discussed, but none of the physicians present had ever seen a case and none was very familiar with the conditions associated with the disease.

Postoperatively the patient did very well for about ten hours, but the next morning the nurses found that the blood pressure was low. Respirations became irregular and the pulse barely palpable. Although fluids, blood and oxygen were administered the state of shock continued and the patient died about 15 hours after operation.

The principal findings at autopsy were enlarged liver (2,100 gm.) and an enlarged spleen (550 gm.). The lower border of the right lobe of the liver was of considerably less than normal sharpness, but the left lobe had a fairly sharp margin. The liver extended 5 cm. below the right costal margin. The capsule was thin and purple-red. In sections through the liver old, grey-white firm thrombi were observed, completely plugging the lumens of two of the major tributaries to the hepatic vein. In the mid-portion of the right lobe, 5 cm. inferior to the point where the hepatic vein left the liver, was a vein containing a recent thrombus surrounded by an irregular area about 4 cm. in diameter of opaque, yellow-tan necrosis of the hepatic parenchyma. Elsewhere the parenchyma was cyanotic and offered increased resistance to crushing. Multiple sections through the parenchyma revealed thrombi in numerous small tributaries of the hepatic vein, most of which appeared to be the seat of advanced organization. There was no sign of malignant change anywhere and no enlarged nodes.

Microscopic slides from the liver showed partial or complete plugging of the lumens of the major tributaries of the hepatic veins. The plugs consisted of loose connective tissue from organizing thrombi. This also involved some of the minor hepatic vein tributaries. There was minimal vascularization and much of the tissue was quite myxomatous in nature. Fairly numerous hemosiderin-filled macrophages were present, as well as a few lymphocytes. The fibroblasts were small. In one of the major tributaries the central portion showed a more recent thrombus in which the red blood cells showed only mild degenerative change, including some hyalinization. The muscular coats of the veins were free from inflammatory cells, but showed mild separation of the muscle bundles by loose fibrous tissue. The surrounding hepatic parenchyma showed profound engorgement about the central veins, with actual necrosis of all but the peripheral cells within the lobules. The central zones were markedly hemorrhagic and there were numerous von Kupffer cells filled with hemosiderin pigment. In other sections of the liver, necrosis of complete coagulative type was noted, with only ghost outlines of the normal hepatic tissue remaining. In some areas there was pronounced leukocytic infiltration and hemorrhage. The over-all lobular pattern was intact and there was no periportal fibrosis. The viable liver cells were poor in glycogen content.

In a microscopic section of the spleen diffuse engorgement of the pulp with blood was noted. The cords of Bilroth were quite prominent and appeared to be somewhat fibrotic.

The anatomical diagnosis was Chiari's syndrome secondary to or associated with polycythemia vera; focal hepatic necrosis; hepatomegaly; splenomegaly; marked acute, passive congestion of liver; ascites; and other lesser insignificant findings.

DISCUSSION

Records of a laboratory examination of the blood of this patient that was done in 1948 were obtained. At that time the hemoglobin content was 15.2 gm. per 100 cc. and erythrocytes numbered 4,290,000 and leukocytes 9,400 per cu. mm. In

August, 1951, erythrocytes numbered 5,580,000, hemoglobin content was 15.8 gm., and leukocytes numbered 7,850.

The patient was not dehydrated clinically on admission, and it is believed the results of blood examination at that time warranted a diagnosis of polycythemia vera.

While symptoms in this patient were of short duration—a month or less—the features noted in microscopic examination of specimens of the liver suggest that the pathologic changes had begun a good deal earlier. Therefore the case probably should be classified as chronic.

In retrospect it seems that operation would not have been done, even though a tumor was suspected, had the report of bromsulfalein dye retention been available before operation. This report was not made available, however, until after the autopsy had been done. It is commonly accepted that a patient with liver damage of so great extent does not tolerate anesthesia or exploration.

In a later report the pathologist, commenting on the so-called "tumor cells" seen in the Papanicolaou specimen, said: "These masses of cells present in the fibrin apparently are of serosal origin and are undoubtedly the cells seen in the Papanicolaou smear."

SUMMARY

There have been only 123 cases of Budd-Chiari's syndrome reported in the literature. Only nine of them were associated with polycythemia vera. The case herein is the tenth.

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Diverticulum of the Urinary Bladder in a Woman

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A LARGE DIVERTICULUM of the urinary bladder of a woman is relatively rare. Various observers have reported from 3 to 7 per cent of diverticula as occurring in females,[1] but in many of the cases the diverticula were small and asympomatic and were observed only incidentally in routine urological study. Successful treatment of a large diverticulum of the urinary bladder, whether in a man or a woman, entails resection of the lesion and then elimination of the cause, usually obstruction of the neck of the bladder.[2] In women the cause of obstruction is, in most cases, contraction of the neck of the bladder but usually what brought about the contraction cannot be determined.

REPORT OF A CASE

The patient, a woman 46 years of age, was referred for urological care by a physician who had observed chronic retention of 750 cc. of urine.

As a girl and a young woman the patient had noticed that the urinary stream when she voided was smaller than that of her companions and it took longer for her to empty her bladder. There had never been acute urinary retention or episodes of acute urinary infection in her youth. The patient had had two children, 14 and 18 years previously, without urinary complications during pregnancy or delivery. Her general health had been excellent except for a period of eight months spent in a tuberculosis sanitarium when she was 18 years of age.

In an automobile collision 14 months before the present illness, the patient had received a compound fracture of the lower left leg and the right forearm and a very severe cerebral concussion and skull fracture. When she regained consciousness after 13 days of coma, her first discomfort was that from a full bladder. She apparently had had overflow incontinence while she was unconscious and a Foley catheter was inserted. On removal of the Foley catheter, after several weeks, she had a feeling that she never completely emptied her bladder. She said nothing of it at the time, however, lest her discharge from the hospital be delayed. About two months before the patient was observed by the author, she had sacral and low pelvic aching which at first she attributed to the recent injuries. However, when she began to strain to void and noticed a palpable suprapubic mass, she consulted a physician who noted what he thought to be a large ovarian cyst. She was referred to a gynecologist who reduced the suprapubic mass by removing 750 cc. of clear residual urine by catheter and referred the patient for urological care.

Upon examination a large soft, fluctuant, nontender suprapubic mass slightly to the right of the midline and extending nearly to the umbilicus was palpated. A No. 18 catheter was inserted into the

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Submitted October 6, 1954.

urethra, 750 cc. of clear residual urine was released, and the mass disappeared. A No. 22 (French) sound was then passed with difficulty owing to stenosis of the urethra. Upon analysis of a specimen of the urine withdrawn, no abnormality was noted. A cystometrogram was made at this time and there was no abnormality until the bladder was filled to 1,100 cc. of fluid; at that stage the patient complained of pain and the column of water in the manometer rose from 20 cm. to 80 cm. Upon cystoscopic examination a mild degree of coarse trabeculation of the area just posterior to the bladder trigone was observed. The ureteral orifices and bladder neck appeared normal. On the right side, just lateral to the right ureteral orifice, there was a large opening of a diverticulum. A cystogram was made, with 1,000 cc. of a 4 per cent sodium iodide solution used as a contrast medium, and a diverticulum some 15 cm. in diameter arising from the right base of the bladder was observed.

The patient was admitted to hospital for diverticulectomy. A midline suprapubic incision was made after the bladder had been distended with about 800 cc. of sterile saline solution. The dome of the bladder and the large diverticulum on the right side were easily visualized and the diverticulum was freed by blunt dissection down to the point of attachment to the bladder. At this stage the diverticulum was punctured and aspirated. A finger was put into the sac, which then was easily dissected down to its neck. A catheter which had been previously placed identified the right ureter, permitting safe dissection to free it from the adherent sac of diverticulum. The diverticulum was then excised from the bladder and the opening in the bladder wall was closed with a continuous triple O chromic suture through the mucous membrane. The muscularis of the bladder was then brought over the defect with interrupted O chromic sutures. A drain was placed to the right base of the bladder and brought out through the abdominal wall. The patient left the operating room in good condition with a No. 20 Foley catheter in place.

The pathologist reported that the empty diverticulum sac weighed 32 grams.

The patient did very well and left the hospital ten days after operation, without the Foley catheter and voiding well. She had retention of about 2 ounces of urine and there were many pus cells in a specimen. Gantrisin® to be taken by mouth was prescribed for control of a mild bladder infection, and the patient was examined weekly in the office.

On July 30 the residual urine was 9 ounces and cystographic and cystoscopic examinations were done in the office. It was observed that the area where the diverticulum had been excised from the bladder was still sloughing but was healing satisfactorily. The cystogram showed that the diverticulum had been satisfactorily removed. A cystometrogram showed discomfort and a precipitous rise in the manometer when the bladder was filled with 700 cc. of solution. During this period urethral dilatations were carried out with No. 30 (French) sounds, which were passed with some difficulty.

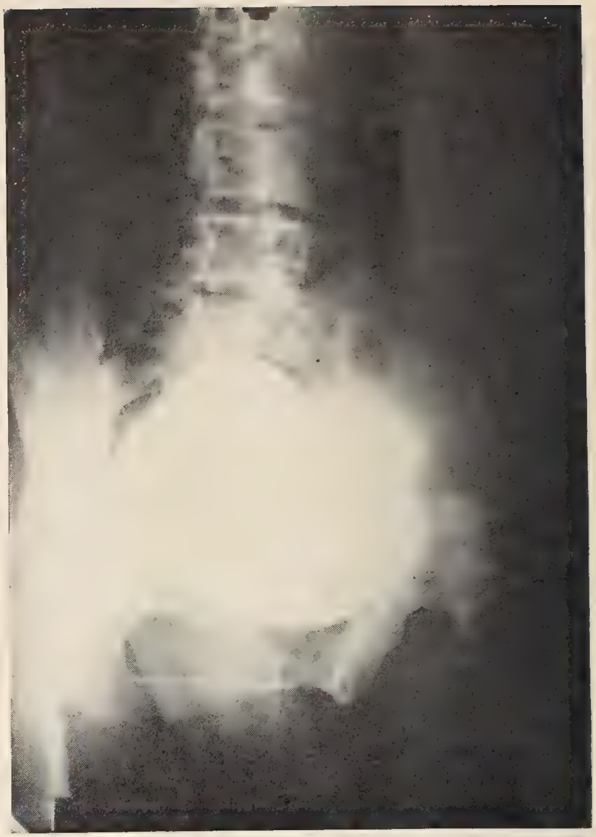

Figure 1.—Cystogram showing trabeculated margin of bladder and smooth contour of the huge diverticulum.

Because it was feared that there might be some previously overlooked neurological lesion causing increasing retention of urine, the patient was readmitted to the hospital on August 13. A neurosurgical consultant studied the patient carefully, made a myelogram and reported that he found nothing to suggest any lesion of the cord or other neurological lesion that might account for the symptoms referable to the bladder.

On September 11, a cystoscopic examination and right pyelogram were done because the patient had had pain in the right kidney area, which she was certain was due to the "dilated right kidney." It was concluded that there was mild contracture of the neck of the bladder. No abnormality was noted in the pyelogram.

The patient was admitted to hospital again September 15 for transurethral resection of the neck of the bladder. A small layer of tissue completely around the bladder neck was removed with a McCarthy resectoscope. The patient left the hospital five days later without a catheter and voiding comfortably.

The pathologist reported hypertrophy of the fibromuscular tissue of the bladder neck. The specimen weighed 8 grams.

The patient was observed rather frequently in the office and was given 1 gm. of Gantrisin daily.

Seven months after the operation, cystoscopic examination was again done and the bladder neck looked quite smooth and there was no resistance to the passage of a No. 28 sound. The previously noted trabeculation on the area posterior to the trigone was still present. Retrograde pyelograms were normal. There was a tiny flat scar in the area where the diverticulum had been removed. A cystogram showed a slight flattening of the right side of the bladder. There was no roentgenographic evidence of retention of urine after voiding.

COMMENT

How the diverticulum came about in the present case is uncertain. The history would seem to indicate that the patient had had contraction of the neck of the bladder since childhood. However, another etiologic possibility is posed by the fact that only a little more than a year before the diverticulum was diagnosed the patient had been unconscious for 13 days following fracture of the skull and for at least part of that time had had distention of the bladder. The treatment necessitated two operations because when cystoscopic examination was first carried out it was hard to imagine that the very slight contracture of the neck of the bladder could cause sufficient obstruction to produce a diverticulum. However, when the bladder did not empty readily after the diverticulum was removed it became evident that the contracture caused more obstruction than had been recognized. Transurethral resection of the neck of the bladder gave complete relief.

1515 State Street, Santa Barbara.

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Carcinoid Tumor of the Rectum

LEWIS GRODSKY, M.D., San Francisco

CARCINOID TUMORS of the rectum are uncommon, slow-growing but malignant submucosal lesions, having full potentialities for tissue invasion and widespread metastasis. In approximately 15 per cent of the total number of cases of rectal carcinoid tumor reported to date these lethal tendencies have been noted.[5] Raven[8] stated: "The formation of metastasis is only a matter of time although the degree of malignancy is less than in adenocarcinoma. As the tumor enlarges the cells will eventually transgress their barriers." The prognosis has proved favorable when the lesion was detected and removed in the early stage. The need for early clinical recognition and complete excision of rectal carcinoid tumor is therefore emphasized.

Stout[12] in a review of the literature in 1942 found reports of only six cases, to which he added six more. In the past decade reports of rectal carcinoid tumors have increased steadily, owing to advanced pathological knowledge and increasing medical acuity. At this date, the number of authenticated cases is approaching two hundred and the total is increasing constantly.

Carcinoid tumors can occur anywhere along the gastrointestinal tract where Kultschitzky basigranular cells are found. The majority of lesions are located in the appendix and ileocecal region. Grimes and Bell,[2] in an excellent review, reported on 20 treated patients with the intestinal carcinoid lesion, which summarized the experience at the University of California Hospital for the 21-year period 1927 through 1947. Eleven had tumors involving the appendix; in eight cases the small bowel, mainly the terminal ileum, was the site; and in one case the growth was in the cecum. The author's own search of the University of California Hospital and Proctology Clinic files showed carcinoid tumor to be less frequent in the rectal area than elsewhere in the gastrointestinal tract. In all the records examined, only three cases were noted, and in all three the lesion was in early stage.

CLINICAL CONSIDERATIONS

Early rectal carcinoid tumors like simple adenomata cause no significant symptoms or diagnostic signs. Age, sex and racial distribution are variable and insignificant. Discovery is invariably made while investigating for an unrelated condition or on routine proctologic examination.

The early rectal carcinoid tumor is usually a single small (0.5 to 1.0 cm.) movable submucous nodule of a rather firm consistency. The nodule is covered by normal mucosa and projects boldly above the surface level. Usually it is of yellowish color—strikingly yellow on cut surfaces. Occasionally the lesions are polypoid in contour and even multicentric in origin. Adenomata can be present simultaneously.[7, 9, 11] The differential diagnoses to be considered are adenomata and submucosal tumors such as eleoma, lymphoma, fibromyoma, leiomyoma and sarcomatoma.[4]

Later, at variable and delayed periods of time, accelerated growth of the carcinoid tumor may involve both surface and deeper changes. Proliferation, infiltration and ulceration with local and widespread metastasis will produce all the characteristic signs and symptoms of an advancing adenocarcinoma of the rectum.[3, 6] Infrequently, small silent benign-appearing tumors have been indicted as the source of widespread metastases.[1, 10]

Treatment of rectal carcinoid tumor is dependent on the size and advancement of the lesion. An early single small (0.5 to 1.0 cm.) movable tumor in a

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From the Department of Surgery (Proctology), University of California School of Medicine, San Francisco.

Submitted January 3, 1955.

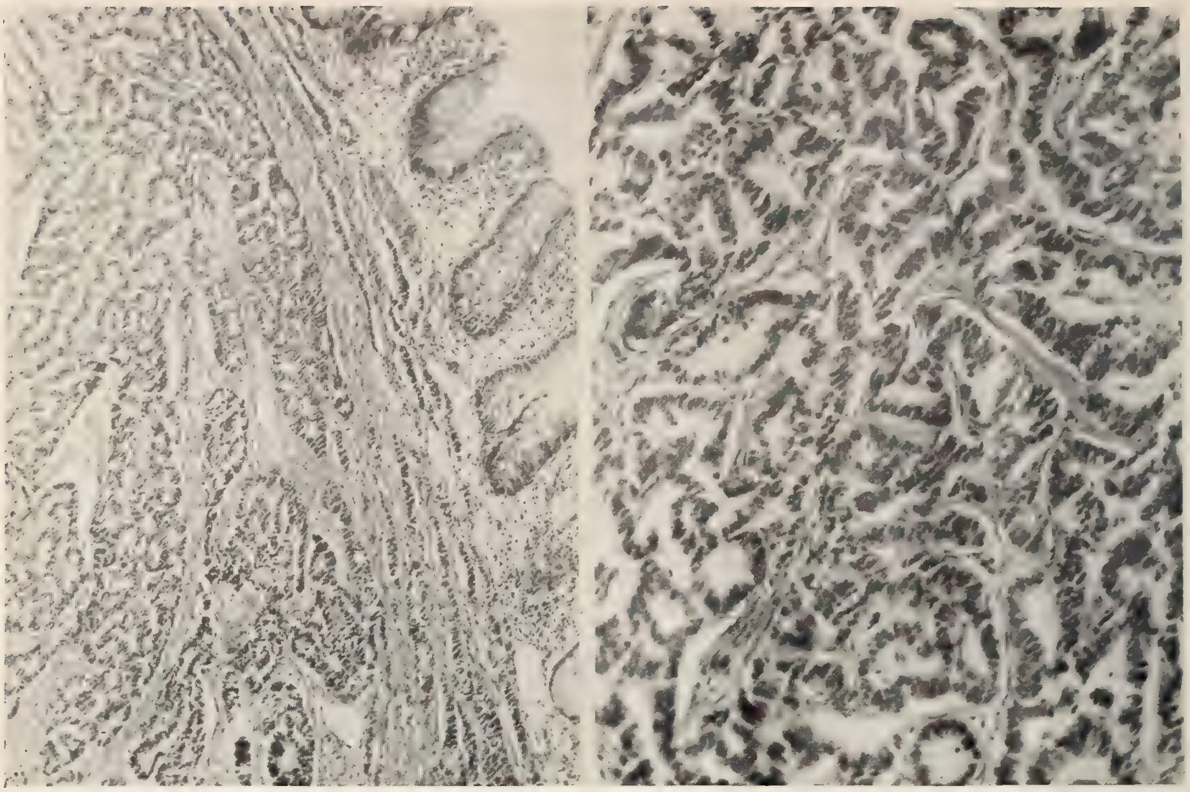

Figure 1.—(*Left*) Section showing an intact bowel mucosa with carcinoid cells arranged in columns and pseudoalveolar formation in the muscle fibers and connective tissue stroma of the submucosa (×80). (*Right*) Central portion of the tumor showing columns of carcinoid cells with hyperchromatic oval nuclei and scant cytoplasm arranged in a rosette and pseudoacinar pattern (×320).

favorable location is treated as an adenomatous polyp and removed in toto by scalpel or by electrosurgical snare with fulguration of the base. Pathological study of the entire specimen is preferable to study of a small preliminary biopsy specimen. The prognosis is excellent with early small tumors but pneumocolon and periodic follow-up are essential, as in adenoma. Multiple carcinoid tumors, those in unfavorable locations (above the peritoneal reflection), or recurrent lesions will require more radical procedures to insure safety. Larger lesions (over 2 cm.) showing clinically malignant signs such as infiltration, fixation or ulceration, should be treated by radical resection as in adenocarcinoma. The survival rate after radical operation has been good even in the presence of metastasis, because of the slow growth dynamics of carcinoid tumor.

PATHOLOGY

Examination of the excised tumor is the sole criterion by which an absolute diagnosis of rectal carcinoid tumor can be made.[4] Grossly, the early carcinoid specimen is firm and is covered by normal mucosa. It is hard to cut and is of rubbery consistency. Cut surfaces are smooth and homogeneous, often pale yellow due to the high lipoid content in the cytoplasm. Larger lesions are not so typical and there are more likely to be gross surface and degenerative changes similar to those of adenocarcinoma of the rectum.

Microscopically, the tumor consists of circumscribed submucosal nests, lobules, rosettes or columns of small fairly uniform, benign-appearing dark cells surrounded by muscle fibers and hyperplastic connective tissue stroma. Single or mixed patterns can occur in the same tumor and pseudoalveolar formations are often present. The individual cells have sharply demarcated, oval or rounded, hyperchromatic nuclei in a clear scant finely granular eosinophilic cytoplasm with an indistinct border. Argentaffin granules in the cytoplasm can reduce silver salt to brown-black particles, but this is inconstant in rectal carcinoid tumors because of a deficiency of the enteramine enzyme, which is more common in carcinoid tumors found elsewhere. Mitoses are usually sparse. The progressive malignant potentialities of the tumor cannot be prognosticated by the microscopic features as they can in other types of malignant lesions. Cells in advanced lesions and metastatic nodes may appear identical with those seen in early small benign-acting tumors.

CASE REPORTS

Case 1. A 38-year-old white housewife was referred to the proctology clinic by the medical service in 1950, because of a firm asymptomatic rectal nod-

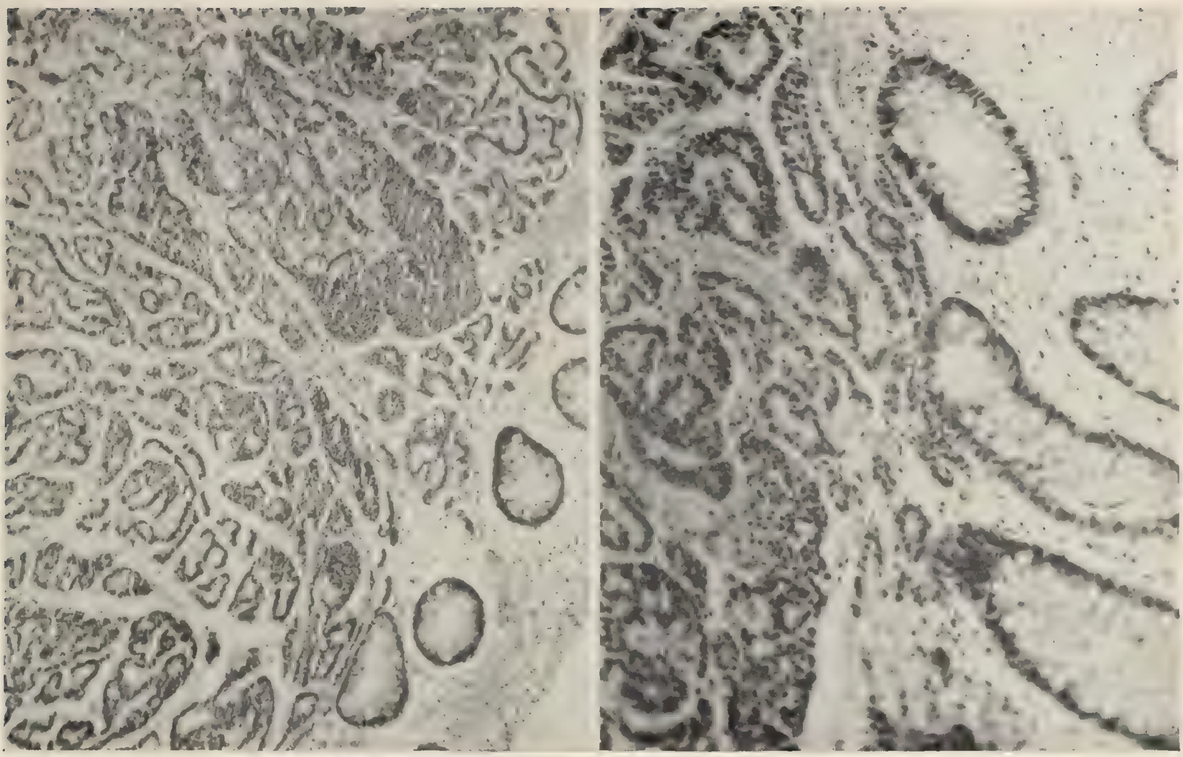

Figure 2.—*(Left)* Section showing circumscribed submucosal carcinoid cell nests, rosettes and ribbon-like column closely associated with an intact mucosa (×80). ***(Right)*** Carcinoid cells with basophilic oval nuclei appear to arise from the base of a crypt of Lieberkuhn (×160).

ule palpated on a routine physical examination. Upon proctologic examination a large anal skin tag, internal hemorrhoids and the firm palpable movable nodule on the right rectal wall about 9 cm. from the anus were noted. The nodule was about 0.8 by 1.0 cm. It projected sharply from the surface level and had normal mucosal cover. It seemed firmer than the usual adenomatous rectal polyp. Excision was done by diathermy snare and the base was fulgurated. The nodule was hard to cut. Cut surfaces were yellowish. The entire specimen was sent to the pathologist for study. The diagnosis was carcinoid tumor of the rectum (see Figure 1). There was no recurrence at the time of last examination, more than four years later.

CASE 2. A 46-year-old white male warehouseman was referred to the proctology clinic by the medical service in 1950, because of recurrent bright red rectal bleeding after bowel action for the previous year. Large prolapsing internal hemorrhoids and a projecting nodule about 0.5 cm. in diameter on the right rectal wall at the level of the second rectal valve were observed upon examination. The tumor was rather firm and was covered by normal mucosa. Excision was made by diathermy loop and the base was desiccated. The pathological diagnosis was carcinoid tumor of the rectum (see Figure 2).

CASE 3. A 52-year-old white male laborer was referred to the proctology clinic by the medical service in 1941, because of rectal bleeding and irregular bowel action for three months. The patient was

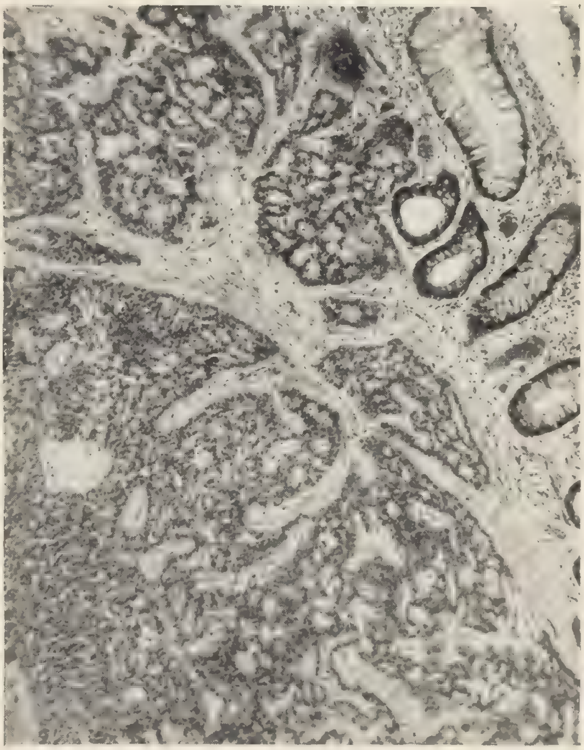

Figure 3.—Section showing carcinoid cells arranged in circumscribed sheets, whorls and rosettes surrounded by submucosal muscle fibers and connective tissue stroma (×80).

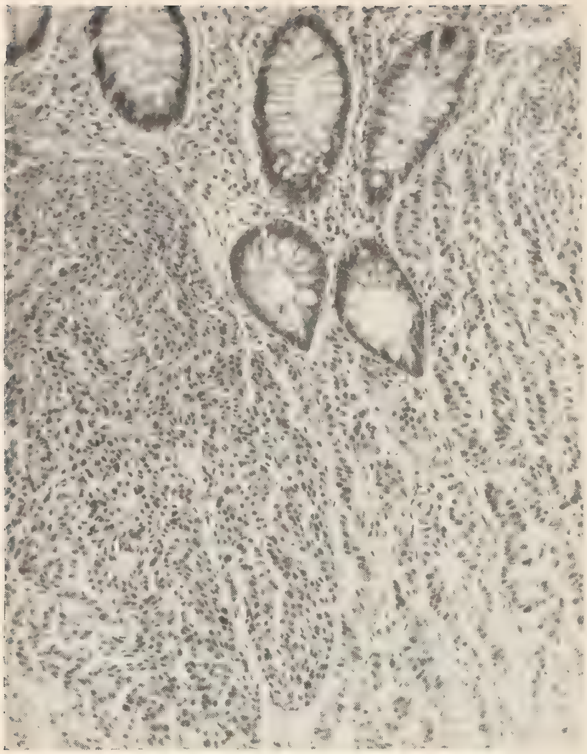

Figure 4.—Section showing submucosal carcinoid cells with small hyperchromatic oval and rounded nuclei arranged in columns and nests with a suggestion of pseudoalveolar formation. Carcinoid cells have penetrated the mucosal surface (×160).

under medical care for chronic bronchitis and cardiac disease. Upon examination, internal hemorrhoids and a prominent indurated polyp with normal mucosal covering projecting from the right posterior wall at the 7.5 cm. level were noted. The tumor was removed by diathermy snare and the base was fulgurated. The pathological diagnosis was carcinoid tumor and an argentaffin stained specimen showed scattered black granules in the tumor cell cytoplasm. The patient died of a myocardial infarct eight months later without any evidence of recurrent carcinoid tumor (see Figure 3).

COMMENT

Rectal carcinoid tumor is probably more common than is reported in the literature. In the three cases herein reported the carcinoid tumor was of the early asymptomatic type. The lesions were discovered on routine proctologic investigation. A rectal nodule firmer than the usual adenoma with a yellowish tinge should alert the clinician but diagnosis can be confirmed only by microscopic examination. In only one case did the tumor demonstrate a positive argyrophilic reaction. The author considers the prognosis excellent after local excision of the early lesions. In a fourth case, more advanced, observed by the author there was a firm sessile tumor of over 2 cm. in diameter on the anterior rectal wall 8 cm. from the crypt line, which showed infiltration and ulceration (see Figure 4). Abdominoperineal resection was done in a military hospital and no metastatic lesions were found in the pathological specimen. The patient died five years later of carcinoid metastasis. Rectal carcinoid tumor has demonstrated far greater invasive and metastatic tendencies than corresponding lesions in the appendix.

SUMMARY

Rectal carcinoid tumors are rare and slow-growing but are potentially malignant. Metastasis occurs in about 15 per cent of cases.

Early rectal carcinoid tumor is asymptomatic and is usually discovered on routine proctologic examination. Diagnosis can be established only by pathologic examination of the entire tumor. With local excision of early tumors the prognosis is excellent because of the slow-growth potential. Routine follow-up and pneumocolon are essential as with adenomata.

Large carcinoid tumors with pronounced proliferation, infiltration or ulceration should be treated by radical procedures.

760 Market Street, San Francisco 2.

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EDITORIAL

The A.M.A. Meeting

The "biggest medical show in the world," the American Medical Association annual meeting, took place last month in Atlantic City. Technical and scientific exhibits numbering in the hundreds taxed the time and feet of the thousands of spectators who thronged the huge Atlantic City Convention Hall.

On the business side, the House of Delegates acted on some seventy resolutions and set new policies on such important matters as osteopathic education, hospital internships, hospital accreditation and interpretation of the Principles of Medical Ethics.

Most hotly debated issue before the House was the report rendered by a committee of five eminent A.M.A. members, headed by California's John W. Cline, a past president of the A.M.A., on the question of osteopathic education. This report, prepared after months of searching inquiry, including the actual inspection of five osteopathic colleges by the committee members and the deans of three recognized medical schools, found that osteopathy as taught today no longer holds to the original concept that all bodily ills are the result of maladjustment. In fact, the committee found that not more than five to ten per cent of the osteopathic curriculum is devoted to the teaching of manipulations.

In view of the present curriculum, which follows very closely the teaching in recognized medical schools, the committee recommended that doctors of medicine be allowed to teach in the osteopathic schools and thus, for the benefit of the public, help to raise the educational standards in these schools. To make such teaching possible on an ethical basis, the committee suggested that the term "cultism" not be applied to present-day osteopathy and that the decision as to whether or not ethical physicians teach in the osteopathic schools be left up to local determination.

Permissive though this recommendation was, it was defeated through a one-man minority report on the reference committee—a report which heaped praise upon the valuable work performed by the Cline committee but relegated the report and its recommendations to the "received and filed" category. This action apparently shuts the door on further immediate steps to improve osteopathic education and toward the eventual amalgamation of this type of practice with recognized orthodox medicine.

Along the line of internship approval programs, the House of Delegates approved a report which favored the findings of the *ad hoc* committee on internships and urged a continuing study as to what should be the content of an internship and what constitutes sound clinical experience during the intern year. The report also urged the adoption of the "one-fourth" rule, under which any internship program which does not receive and train in any two successive years one-fourth of its stated complement of interns should be disapproved. This rule is intended to reduce the heavy demands made by some hospitals for new interns where the training offered does not attract more than a small percentage of the students sought.

In the field of hospital accreditation, the House voted to establish a new study committee, none of whose members shall be members of the Joint Commission on Accreditation or members of the Council on Medical Education and Hospitals. This committee would be empowered to study the operations of the Joint Commission and to seek reports on the manner in which its program is being carried out. Physicians and hospitals are urged to forward to this committee any observations or suggestions on the functioning of the Joint Commission on Accreditation. In theory, at least, this special committee may develop suggestions for the consideration of the members of the Joint Commission, especially those members who serve as representatives of the A.M.A.

Next of the major items decided by the House of Delegates was a change in wording of one section of the Principles of Medical Ethics. This section, referring to the dispensing of drugs or appliances by physicians, was so severely worded in its earlier form that even ownership of capital stock in a pharmaceutical manufacturing concern might have been open to question in relation to the doctor's ethics. As reworded by the House of Delegates, this section states that "It is not unethical for a physician to prescribe or supply drugs, remedies or appliances as long as there is no exploitation of the patient." Under this language the primary interest of the public is protected and those physicians who, for a variety of needs and reasons, find it advisable to dispense, may continue to do so and retain their ethical standing.

Coming issues of the *Journal of the American Medical Association* will contain a complete report on all House of Delegates actions. Many of these have a limited application but some may find points of interest in many areas. Reading of all such actions is recommended.

Most gratifying to Californians was the last-day action of the House of Delegates in electing Dr. Dwight H. Murray of Napa as president-elect of the A.M.A. and Dr. E. Vincent Askey of Los Angeles as Speaker of the House of Delegates.

Dr. Murray has served on the A.M.A. Board of Trustees for the past ten years, the last four as its chairman. Dr. Askey has served the past three years as vice-speaker of the House of Delegates and was signally honored when Dr. James R. Reuling of New York, Speaker of the House, made the nominating speech to place his vice-speaker into the Speaker's chair.

Thus California is again recognized in the A.M.A. as the producer of top personnel to help guide the nation's medical progress. Such honors do not come without a long background of hard and capable accomplishment and it is certain that both Dr. Murray and Dr. Askey will fulfill their assignments with distinction in the interests of better medicine. This state may well be proud of both.

LETTERS to the Editor . . .

Sunday Medical Meetings

IT IS HIGH TIME somebody spoke out against the ever more prevalent Sunday medical meetings and conventions.

Admittedly I was raised in a strict religious home and Sunday was set apart as a different day for church, for rest and healthful recreation. In our town things really slowed down on Sundays, and for the most part people returned to work on Monday rested and invigorated.

As a doctor I am not always able to abide by this concept of complete detachment from work, spiritual contemplation and recreation on Sunday but I do make an attempt at it, and I know it is good for me and my patients. I fail to see why we as doctors should deliberately decide to study and ponder medical problems and others of our number should work hard to teach us medical subjects on Sundays when all week long and many nights and holidays we *have* to study and practice medicine.

It is my belief that much of the Mosaic law has a health value as well as a moral value, and the one to "remember the Sabbath" is an outstanding example. Certainly our ever increasing numbers of nervous, anxious, jittery, fatigued, worn-out and outright psychotic people are directly related to our sped-up, hopped-up, begadgeted type of living in which Sunday is frequently the most fatiguing day of all. Why should we as doctors make ourselves a party to this practice?

Someone has given us a series of recommendations for quick entry into the Coronary Club. I think that "Attend every Sunday medical meeting and convention available" should be added to the list.

Some would say, "We don't have any other time but Sunday for these meetings." I say, "Bushwah." If the painters, plumbers and carpenters can make a pretty fancy living in 40 hours a week, we should be able to in the 60 or so we have to work without adding Sunday to it intentionally. The practice in all other lines of endeavor seems to be to cut down on working hours as much as possible.

Others might say a medical convention or meeting is fun, is recreation, is different. Yes—in a way; but they are mighty tiring, too, and it's still the same drop of water striking the cranium hour in and hour out, Chinese fashion, which drives one crazy.

PAUL M. ELLWOOD, SR., M.D.

California MEDICAL ASSOCIATION

NOTICES & REPORTS

Council Meeting Minutes

Tentative Draft: Minutes of the 412th and 413th Meetings of the Council, April 30 to May 4, 1955, Sheraton-Palace Hotel, San Francisco.

412th Meeting

The meeting was called to order by Chairman Lum in the California Room, Sheraton-Palace Hotel, San Francisco, at 9:30 a.m., Saturday, April 30, 1955.

Roll Call:

Present were President Morrison, President-elect Shipman, Speaker Charnock, Vice-Speaker Bailey, Editor Wilbur and Councilors West, Wheeler, Loos, Sampson, Pearman, Randel, Ray, Sherman, Lum, Bostick, Teall, Frees, Kirchner, Reynolds, Varden and Heron.

Absent for cause, Secretary Daniels.

A quorum present and acting.

Present by invitation during all or a part of the meeting were Messrs. Hunton, Clancy, Thomas and Gillette of C.M.A. staff; legal counsel Hassard; health insurance consultant Waterson; Mr. Ben Read and Mr. Eugene Salisbury of the Public Health League of California; county society executive secretaries Scheuber of Alameda-Contra Costa, Jensen of Fresno, Geisert of Kern, Pettis of Los Angeles, Bannister of Orange, Marvin of Riverside, Foster of Sacramento, Nute of San Diego, Neick of San Francisco, Thompson of San Joaquin, Wood of San Mateo, Donovan of Santa Clara and DeVere of Stanislaus; Dr. Malcolm H. Merrill, State Director of Public Health; Dr. Joseph W. Sadusk, Jr., Dr. Francis J. Cox, Mr. K. L. Hamman, Mr. Paolini and Dr. A. E. Larsen of California Physicians' Service; Mr. Ed Colvin of Santa Clara County Medical Society; and Drs. Dan O. Kilroy, John W. Green, James C. Doyle, Russel V. Lee, C. L. Stealy, Thomas Elmendorf, Bradley C. Brownson, John W. Cline, Ian Macdonald, John R. Upton, Wayne Pollock, Donald Cass, E. C. Rosenow, Jr., R. S. Kneeshaw, S. J. McClendon, E. E. Wadsworth, Jr., and Messrs. Robert Huber of legal staff and Fred O. Field, legal counsel to the Los Angeles County Medical Association.

1. *Minutes for Approval:*

(a) On motion duly made and seconded, minutes of the 411th Council meeting, held April 2, 1955, were approved.

(b) On motion duly made and seconded, minutes of the 249th Executive Committee meeting, held April 13, 1955, were approved.

2. *Membership:*

(a) A report of membership as of April 28, 1955, was received and ordered filed.

(b) On motion duly made and seconded, 1,300 members whose dues had become delinquent but who had subsequently paid such dues, were voted reinstatement to active membership.

(c) On motion duly made and seconded in each instance, 21 applicants were voted Associate Membership. These were:

Edward W. Wilson, Alameda-Contra Costa County; Adele R. Eiler, David C. Fainer, Sydney M. Finegold, Samuel H. Fritz, David B. Hinshaw, Albert Labin, Phil R. Manning, and Charles F. Sebastian, Los Angeles County; Harry Miller, Riverside County; Gordon Mannerstedt, Sacra-

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mento County; Irene C. Ellis, San Francisco County; Elmer M. Bingham, Eugene Minard, Clare N. Reese, Jack L. Williams, San Joaquin County; Peter J. Guzvich, Robert Hall, Bernard F. Hansen, Fred W. Tempey, Jr., Santa Clara County; William Vandeventer, Stanislaus County.

(d) On motion duly made and seconded in each instance, seven applicants were elected to Retired Membership. These were:

William A. Kellogg, John W. Nevius, Los Angeles County; Bartholomew Gattuccio, R. T. Glyer, John Hunt Shephard, Edward B. Towne, Santa Clara County; Robert B. Dempsey, Solano County.

(e) On motion duly made and seconded in each instance, reductions of dues were voted for 12 applicants because of prolonged illness or postgraduate study.

(f) Report was made on a county society disciplinary case, where the society had requested appointment of a referee but where the charges had subsequently been withdrawn.

3. *Financial:*

(a) A report of bank balances as of April 28, 1955, was received and ordered filed.

(b) A budget for the 1955-56 fiscal year was presented by Dr. Ivan C. Heron, chairman of the Auditing Committee. On motion duly made and seconded, it was voted to approve this budget for submission to the House of Delegates, with the exception of items covering the work of health insurance consultants and funds for medical education. At recessed meetings it was duly moved, seconded and voted to approve the proposed budget of $48,000 for health insurance consultants and $130,000 for a contribution to medical education, the budget showing dues for calendar 1956 at $50 per active member.

4. *Report of the Council:*

Discussion was held on the report of the Council to the House of Delegates and Mr. Hassard brought before the Council the proposed amendments to the Constitution and By-Laws to establish the Benevolence Fund as a nonprofit corporation. On motion duly made and seconded, it was voted to introduce these proposed amendments before the House of Delegates in behalf of the Council.

5. *Public Relations:*

Mr. Clancy discussed the unfortunate turn of events in regard to the newly-introduced poliomyelitis vaccine and reported on the steps taken in several areas to handle the public relations situation. On motion duly made and seconded, it was voted to prepare an appropriate statement relative to the introduction of new and important biologicals and therapeutic agents through appropriate scientific channels.

Mr. Clancy also reported on meetings of medical students held in San Francisco and Los Angeles on April 17 and April 24, to which a fine reaction had been observed. Several members of the Council commented favorably on these meetings and urged their continuance.

6. *Medical Services Commission:*

Dr. Carey reported on the development of two standardized claims forms for use in health insurance cases, one for individual contract holders and one for members of groups. It was stated that the insurance carriers, acting through the Health Insurance Council, had approved these forms and were considering distributing them. It was regularly moved, seconded and voted to approve these forms. At a recessed meeting, it was moved, seconded and voted to take no direct action on distributing these forms until further word is received on the plans of the carriers for such distribution.

Dr. Carey also discussed the inquiry already made into the feasibility of providing ambulatory medical care for indigents through California Physicians' Service. He requested the Council to urge the Trustees of C.P.S. to investigate the feasibility of such a service where the appropriate county medical society approved. On motion duly made and seconded, it was voted to approve this request. Dr. West asked that his negative vote be recorded.

7. *Medical Education:*

Dr. John W. Green reported that the American Medical Education Foundation had raised $1,500,000 in 1954 and was setting its goal at $2,000,000 for 1955. He urged that the Association participate in this campaign.

On motion duly made and seconded, with an amendment duly made and seconded, it was voted (13 to 5) that the 1956 membership dues be increased by $10 per active member and that the funds thus raised be contributed to medical schools which are not primarily tax-supported.

8. *State Department of Public Health:*

Dr. Malcolm H. Merrill, State Director of Public Health, reported on the poliomyelitis vaccine situation and suggested that elective surgery, especially tonsils and adenoids surgery, be deferred at least three weeks. He stated that 15 polio cases had developed in California to date following the mass inoculation programs; he also gave statistics from other states which indicated that about one case of poliomyelitis might be expected in each 5,000 inoculations.

Dr. Merrill was tendered the commendation of the Council for the prompt and vigorous measures taken by his department in this situation.

9. *California Physicians' Service:*

Mr. K. L. Hamman reported a beneficiary membership of 700,096 and a physician membership for C.P.S. of 12,256 as of March 31, 1955, representing gains of 11 per cent and 6.7 per cent, respectively, in the past year. He also reported that annual gross income for that year was up about 14.5 per cent at more than $26,762,000.

Mr. Hamman also reported that the new C.P.S. contracts are now in force and that 28 counties had approved the proposed $6,000 income ceiling. A new contract has been agreed upon with the Veterans Administration, under which payments to physicians will show about a 19 per cent increase over present fee payments.

Dr. Sherman reported that the San Francisco Medical Society had requested the Council to consider the problem of C.P.S. fees representing the total fee where the beneficiary member has additional insurance coverage. On motion duly made and seconded, it was voted to refer this matter to the Medical Services Commission for study.

10. *Medical Services Commission:*

Dr. Carey read the report of the Medical Services Commission which was to be presented to the House of Delegates. On motion duly made and seconded, the report was approved.

11. *Committee on Industrial Accident Commission:*

Dr. Cox reported on the publication of an article on "The Physicians' Role in Industrial Accident Cases" and suggested that new members of the Association be supplied with copies of this article for reference purposes.

Dr. Cox also recommended that the Association purchase four dynamometers for use by medical examiners of the Industrial Accident Commission in a study of a standardized method of grip measurement. On motion duly made and seconded, it was voted to purchase four such devices at a cost of $180 to further this study.

12. *Legislation:*

Drs. Russel V. Lee and C. L. Stealy and Mr. Hassard discussed Assembly Bill No. 3025, dealing with group and clinic practice, and Business and Professional Code, Section 2393, portions of which Drs. Lee and Stealy found objectionable in the light of the type of practice carried on by their respective groups. Mr. Hassard presented a resolution which the Council had requested earlier, specifying the Association's acceptance of group practice, *per se*, which reads as follows:

WHEREAS, Questions have arisen as to the attitude of the California Medical Association toward the group practice of medicine; and

WHEREAS, Accordingly it appears to be timely and desirable for the Council of the California Medical Association to express itself upon the subject; now, therefore, be it

Resolved, That in the opinion of the Council of the California Medical Association the practice of medicine by physicians in the group form is, under proper conditions, both lawful and ethical; and be it further

Resolved, That such practice is lawful when carried on in conformance with the Medical Practice Act, and ethical when the group and its participating physicians subscribe to and abide by each and all of the Principles of Medical Ethics, including those principles that prohibit advertising or solicitation of patients, denial of free choice of physician, lay control, or rendition of medical services under conditions that do not permit the highest quality of medical services; and be it further

Resolved, That the decision of whether to practice singly or in the group form is a matter for the individual judgment of each practicing physician, and the California Medical Association takes no position of advocacy as to the form of practice selected by its members.

On motion duly made and seconded, this resolution was approved.

On motion duly made and seconded, it was voted to authorize the chairman to appoint a committee to consider the group practice situation and to report back to a later meeting.

13. *Health Insurance:*

Mr. Waterson suggested a program for the coming year designed to produce guides for county medical societies to follow in fostering improved physician-patient relationships. Dr. Bradley Brownson of San Mateo County urged that this program be approved.

Executive Session:

At this point it was regularly moved, seconded and voted to go into executive session, the Council rising therefrom for the luncheon recess.

14. *Public Policy and Legislation:*

(a) Dr. Dwight H. Murray, chairman of the Committee on Public Policy and Legislation, tendered his resignation as chairman and a member of that committee and suggested that Dr. Dan O. Kilroy, a member of the committee, be made chairman. Dr. Murray was tendered the profound thanks of the Council for his committee work for the past 15 years.

(b) Dr. Bernard L. Diamond, representing the three regional psychiatric societies of the state, requested the support of the Association for Assembly Bill 1159, which would establish a system of community or county mental health centers. He also urged a closer liaison between the Association and the psychiatric societies on legislative matters.

It was reported that several communications had been received in support of AB 1159; these were read and referred to the Committee on Public Policy and Legislation.

On motion duly made and seconded, the matter of this proposed legislation was referred to the Executive Committee for further study.

15. *Committee on Malpractice Insurance:*

Dr. Joseph L. Sadusk, Jr., chairman of the Committee on Malpractice Insurance, discussed a proposal to investigate the possibility of establishing a statewide malpractice insurance program. He asked a budget of $19,000 for the coming year, of which $12,000 would be for the retention of a part-time executive secretary for the committee, $2,000 for expenses of an actuary and $5,000 for travel, meeting and incidental expenses.

On motion duly made and seconded, the report and the budget were approved.

16. *Professional Group on Medical Electronics:*

Dr. Lee B. Lusted of the Department of Radiology, University of California Medical School, gave an informative report to the Council on the Professional Group on Medical Electronics, reporting this as a form on electronics where physicians and engineers could cooperate. Recognition for the group will be sought later.

17. *Association Committees:*

Dr. Morrison presented a proposed reorganization plan for all Association committees, together with By-Law amendments needed to put the plan into effect. After considerable discussion, it was regularly moved, seconded and voted to approve this plan and to introduce the By-Law amendments into the House of Delegates.

18. *Section on Orthopedics:*

Dr. Francis E. West reported that By-Law amendments to create a new section on Orthopedics would be introduced into the House of Delegates by representatives of that specialty.

19. *California Medicine:*

Mr. Hunton presented a resolution proposed by the Advertising Committee of CALIFORNIA MEDICINE, seeking support for a change of name of Poliomyelitis Immune Globulin (Human) to its earlier designation of Immune Globulin (Human) in order to eliminate the misleading character of the present nomenclature. On motion duly made and seconded, it was voted to introduce this resolution into the House of Delegates in behalf of the Council.

Recess:

At this point, 6:10 p.m., the meeting was recessed until 7:30 a.m., Sunday, May 1, 1955.

Reconvention:

The meeting was reconvened at 7:30 a.m., Sunday, May 1, 1955, in the California Room, Sheraton-Palace Hotel, San Francisco. A quorum present and acting.

20. *Los Angeles County Medical Association:*

Dr. Ben Frees requested approval of proposed state legislation by which the Los Angeles County Medical Association might secure a beverage license which is currently denied for technical reasons. On motion duly made and seconded, it was voted to approve the introduction of such legislation.

21. *Cancer Commission:*

Drs. Ian Macdonald and John W. Cline requested an amendment to the proposed committee reorganization plan, under which the Cancer Commission would be established as a commission reporting directly to the Council. On motion duly made and seconded, it was voted to approve this request and to make the needed changes in the By-Law amendments to be introduced into the House of Delegates.

Recess:

Prior to recessing at 9:08 a.m., the chairman announced the committee to study the clinic laws as Dr. Bostick, chairman, and Drs. Ray, Varden, Bailey and Sherman, members.

The recess was called until 7:30 a.m., Monday, May 2, 1955.

Reconvention:

The meeting was reconvened at 7:30 a.m. Monday, May 2, 1955, in the California Room of the Sheraton-Palace Hotel, San Francisco. A quorum present and acting.

22. *Blood Bank Commission:*

Dr. John R. Upton, chairman of the Blood Bank Commission, requested the Council not to reduce materially the number of members of the Blood Bank Commission and not to specify that all such members be Doctors of Medicine.

Dr. Upton also asked the Council to approve the furthering of efforts to investigate the establishment of tissue banks within the blood bank structure; if such tissue banks prove to be feasible and are approved by the Council, he asked permission to seek Association funds for their support.

Dr. Upton also asked the Council to approve a statement to be forwarded to the five participating members of the National Blood Foundation (American Medical Association, American Hospital Association, American Association of Blood Banks, American Society of Clinical Pathologists and American National Red Cross) urging that the replacement of blood in the national program not be specified on a unit-for-unit basis but be left to local determination. On motion duly made and seconded, it was voted to approve this statement.

23. *Public Relations:*

Dr. Ben Frees and Dr. James Regan, the latter chairman of the Television Committee of the Los Angeles County Medical Association, requested the continuation until August 8, 1955, of the support being given to the production of a television series sponsored by the Los Angeles County Medical Association. On motion duly made and seconded, it was voted to continue for three months from May 9, 1955, the support of a maximum of $500 monthly provided by the Association.

Recess:

At this point, 9:20 a.m., the meeting was declared in recess until 7:30 a.m., Tuesday, May 3, 1955.

Reconvention:

The meeting was reconvened at 7:30 a.m., Tuesday, May 3, 1955, in the California Room, Sheraton-Palace Hotel, San Francisco. A quorum present and acting.

24. *Place of 1956 Annual Session:*

On motion duly made and seconded, it was voted to hold the 1956 Annual Session in Los Angeles the first week of May.

Recess:

At this point, 9:00 a.m., the meeting was declared recessed until 7:30 a.m., Wednesday, May 4, 1955.

Reconvention:

The meeting was reconvened at 7:30 a.m., Wednesday, May 4, 1955, in the California Room of the Sheraton-Palace Hotel, San Francisco. A quorum present and acting.

25. *Committee on Clinic Licensing Laws:*

Dr. Bostick reported for the committee that amendments to the Medical Practice Act be approved to provide permission for the use of such words as "group," "Clinic," and "medical center" if the users of such terms secure an annual permit from the Board of Medical Examiners. On motion duly made and seconded, the committee's report was approved and the committee instructed to continue functioning.

26. *Statement on Poliomyelitis Vaccine:*

A proposed statement on the manner in which the Salk antipoliomyelitis vaccine has been introduced was discussed and, on motion duly made and seconded, it was voted to table this statement temporarily.

Adjournment:

Prior to adjournment of the meeting, Councilors Ray, Frees and Sampson announced their retirement from the Council and introduced Drs. McPharlin, Rosenow and Wadsworth, their successors. The Council expressed its thanks to the retiring Councilors for their services in behalf of the Association.

There being no further business to come before it, the meeting was adjourned at 9:15 a.m.

DONALD D. LUM, M.D., *Chairman*
SIDNEY J. SHIPMAN, M.D., *Acting Secretary*

* * *

413th Meeting

The meeting was called to order by Chairman Lum at 12:15 p.m., Wednesday, May 4, 1955, in the California Room of the Sheraton-Palace Hotel, San Francisco.

Roll Call:

Present were President Shipman, President-elect Charnock, Speaker Doyle, Vice-Speaker Foster, Councilors West, Wheeler, Loos, Wadsworth, Pearman, Randel, McPharlin, Sherman, Lum, Bostick, Teall, Rosenow, Carey, Kirchner, Reynolds, Varden and Heron, and Editor Wilbur.

A quorum present and acting.

Present by invitation were Messrs. Hunton, Clancy and Gillette of C.M.A. staff; legal counsel Hassard.

1. *Election of Council Officers:*

On nomination duly made and seconded, it was unanimously voted to elect Dr. Donald D. Lum as chairman.

On nomination duly made and seconded, Dr. Ivan C. Heron was unanimously elected vice-chairman.

2. *Appointments:*

On nominations duly made and seconded in each instance, the following appointments were unanimously voted:

Secretary-Treasurer, Albert C. Daniels, M.D.; Editor, Dwight L. Wilbur, M.D.; Executive Secretary, John Hunton; Members Auditing Committee, confirming appointments by chairman Ivan C. Heron, chairman, T. Eric Reynolds, Samuel R. Sherman; Trustees of California Physicians' Service, Ivan C. Heron, Henry A. Randel, T. Eric Reynolds.

3. *Amendments to Clinic Licensing Law:*

On motion duly made and seconded, it was voted to refer to the Legislative Committee the suggested amendments to the Medical Practice Act relating to clinic licensing.

Recess:

At this point, 1:10 p.m., the meeting was declared in recess until 4:30 p.m., Wednesday, May 4, 1955.

Reconvention:

The meeting was reconvened in the California Room, Sheraton-Palace Hotel, San Francisco, on Wednesday, May 4, 1955, at 4:30 p.m. A quorum present and acting.

5. *Statement on Poliomyelitis Vaccine:*

Discussion was held on a proposed statement relative to the manner of introduction of the Salk antipoliomyelitis vaccine. After considerable discussion and several revisions, it was duly moved, seconded and voted to approve this statement, for distribution only to professional quarters, with a condensed statement to be released publicly.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 5:30 p.m.

DONALD D. LUM, M.D., *Chairman*
SIDNEY J. SHIPMAN, M.D., *Acting Secretary*

Executive Committee Minutes

Tentative Draft: Minutes of the 250th Meeting of the Executive Committee, San Francisco, Sheraton-Palace Hotel, May 4, 1955.

The meeting was called to order by Chairman Heron at 5:35 p.m., Wednesday, May 4, 1955, in the California Room of the Sheraton-Palace Hotel, San Francisco.

Roll Call:

Present were President Shipman, President-elect Charnock, Speaker Doyle, Council Chairman Lum, Auditing Committee Chairman Heron, and Editor Wilbur.

Present by invitation was legal counsel Hassard.

A quorum present and acting.

1. *Election of Chairman:*

On nomination duly made and seconded, Dr. Ivan C. Heron was unanimously elected chairman of the committee.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 5:40 p.m.

IVAN C. HERON, M.D., *Chairman*
SIDNEY J. SHIPMAN, M.D., *Acting Secretary*

In Memoriam

COODLEY, OSCAR. Died in Los Angeles, May 13, 1955, aged 60, of coronary occlusion. Graduate of the College of Physicians and Surgeons, Los Angeles, 1917. Licensed in California in 1917. Doctor Coodley was a retired member of the Los Angeles County Medical Association, the California Medical Association, and an associate member of the American Medical Association.

✣

DAVID, JAMES C. Died in San Jose, May 21, 1955, aged 45. Graduate of Northwestern University Medical School, Chicago, Illinois, 1949. Licensed in California in 1951. Doctor David was a member of the Santa Clara County Medical Society.

✣

JORDAN, PETER A. Died in San Jose, June 1, 1955, aged 84. Graduate of Jefferson Medical College of Philadelphia, Pennsylvania, 1901. Licensed in California in 1903. Doctor Jordan was a retired member of the Santa Clara County Medical Society, the California Medical Association, and an associate member of the American Medical Association.

✣

KRAVETZ, IRWIN. Died April 22, 1955, aged 42. Graduate of New York University College of Medicine, New York, 1938. Licensed in California in 1947. Doctor Kravetz was a member of the Los Angeles County Medical Association.

LAWSON, THEODORE C. Died in Oakland, May 13, 1955, aged 59, of infarct left lung, thrombosis, left auricular appendage. Graduate of Harvard Medical School, Boston, Massachusetts, 1923. Licensed in California in 1925. Doctor Lawson was a member of the Alameda-Contra Costa Medical Association.

✣

RIVIN, HENRY A. Died in Three Rivers, May 22, 1955, aged 59, of coronary artery disease. Graduate of Jefferson Medical College of Philadelphia, Pennsylvania, 1919. Licensed in California in 1922. Doctor Rivin was a member of the Kern County Medical Society.

✣

SAVAGE, PHILIP M. Died in East Highlands, June 1, 1955, aged 74, of carcinoma metastatic from the prostate. Graduate of the Cooper Medical College, San Francisco, 1907. Licensed in California in 1907. Doctor Savage was a member of the San Bernardino County Medical Society, a life member of the California Medical Association, and an associate member of the American Medical Association.

✣

TURKEL, A. WILLIAM. Died in San Francisco, May 21, 1955, aged 47, of coronary occlusion. Graduate of the University of Southern California School of Medicine, Los Angeles, 1937. Licensed in California in 1937. Doctor Turkel was a member of the San Francisco Medical Society.

WOMAN'S AUXILIARY
TO THE CALIFORNIA MEDICAL ASSOCIATION

OUR THANKS AND GREETINGS

The busy days of the state convention are still a pleasant memory as we take up the task of being an efficient auxiliary to the California Medical Association. We want to thank you doctors for sponsoring the beautiful tea dance which has grown to be so popular. The attendance this year was the largest ever. To know the arrangements for the dinner dance are in your hands is a big relief to the woman's committee members who are busy with the many details of meetings and the Auxiliary luncheon. We add our thanks for this, too.

A new board and committee chairmen greet you. We would like you to meet this group of serious and efficient women.

Officers and Chairmen for 1955-1956

Mrs. Paul Blaisdell	President-elect
Mrs. Leonard Offield, Membership	First Vice-President
Mrs. Samuel Gendel, Program and Health	Second Vice-President
Mrs. Louis Olker	Recording Secretary
Mrs. Warren Bostick	Corresponding Secretary
Mrs. Theodore Poska	Treasurer

Councilors-at-Large

Mrs. Everett Stone	Legislation
Mrs. Floyd Anderson	Physicians' Benevolence
Mrs. Charles Sprague	*Courier*
Mrs. Alexander Cruden	Public Relations
Mrs. Arthur Howard	*Today's Health*
Mrs. Dan Kilroy	Finance
Mrs. Leland Lewis	Historian
Mrs. Leslie Spears	Exhibits
Mrs. Lawrence Custer	Nurse Recruitment
Mrs. C. M. Kroeger	Civil Defense
Mrs. Stanley Truman	Parliamentarian
Mrs. Ludwig Kaftan	Revisions
Mrs. Van Hamilton	Amer. Medical Education Foundation
Mrs. Robert Garrett	Mental Health
Mrs. Edgar Wayburn	Publicity
Mrs. Brigham Bergstrom	Convention

Your Auxiliary was formed twenty-six years ago because there was a need for the doctor's wife to become an active helper to the medical profession. Our first consideration is to emphasize the importance of each county Auxiliary working closely with its county medical society. We are, quite literally, your Auxiliary. Our assignments come from the California Medical Association. Our programs aim to promote the advancement of medicine and public health. We like our job; we are proud of being doctor's wives and happy to serve the profession. We want you to be pleased with the way we carry out your program. We hope you will continue to give us suggestions and information for the mutual benefit of our organizations.

* * *

NEW AUXILIARIES OUR AIM

New members and new auxiliaries will be our Number One consideration this year. We need your help because the approval given by individual doctors and by the medical society to the Auxiliary carries much weight. Your verbal sanction often results in either a new county Auxiliary or a new member. Last year Dr. Arlo A. Morrison, then president of the California Medical Association, was directly responsible for the organization of Merced Auxiliary. The year before, after visits from him two Auxiliaries were formed. There remain eight counties which we would like to see organized before the year is over. The larger our number, the more effective our contribution can be.

* * *

NEW PUBLICITY COMMITTEE

The new Auxiliary board is grateful to Mrs. Frederick Miller for her vision in securing this page. We are indebted to her for utilizing the space so ably in its first year.

Because this page has evoked such a favorable response during the past year, and because we hope to have more of interest to report to you during the coming year, we are setting up a new Publicity Committee to handle our material and to work with the Auxiliary president and your Editorial Board. Members will be Mrs. Thomas Broderick, San Francisco; Mrs. Charles Hart, Contra Costa County; Mrs. Stanley Kneeshaw, Santa Clara County; and Mrs. Edgar Wayburn, San Francisco, chairman. This committee will appreciate any ideas, suggestions or comments from the readers of this page.

Mrs. Matthew Newell Hosmer, *President*

NEWS & NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

Dr. Paul C. Samson of Oakland was elected president-elect of the American Trudeau Society at the recent annual meeting of the organization in Milwaukee. He will be installed as president at the annual meeting next year.

* * *

Dr. Robert K. Cutter, president of the Cutter Laboratories, Berkeley, was elected president-elect of the American Pharmaceutical Manufacturers Association at its 48th annual meeting, which was held at White Sulphur Springs, West Virginia, early in June.

* * *

Berkeley City Health Director **Emil E. Palmquist** has been appointed a clinical professor of public health at the University of California. Dr. Palmquist will teach courses in public health administration for undergraduate and graduate students at Berkeley.

LOS ANGELES

An extension for one year of grants totaling $24,188 to support **studies of cerebral palsy** at the University of California at Los Angeles School of Medicine was announced recently by the United Cerebral Palsy Association. For continuance of study of placental transmission of viral infections, $15,401 was allocated to John M. Adams, M.D., head of the department of pediatrics at U.C.L.A. Medical Center, David T. Imagawa, Ph.D., and Margaret H. Jones, M.D., associate professor of pediatrics.

An award of $8,787 was made to aid research being done by Earl Eldred, M.D., on centroneural control of the muscle spindle.

* * *

Dr. Howard W. Bosworth, director of Barlow Sanatorium, was chosen president-elect of the National Tuberculosis Association at the annual meeting held in Milwaukee in May. Dr. Bosworth is a former president of the Los Angeles County Tuberculosis Association, the California Tuberculosis and Health Association, the California Trudeau Society and the American Trudeau Society.

* * *

Dr. DeWitte T. Boyd, who formerly was in private practice as a pediatrician in Alhambra, recently was appointed health officer of the central Los Angeles health district by the Board of Health Commissioners.

SAN FRANCISCO

Hiroshi Yamauchi of San Francisco was winner this year of the gold headed cane presented annually to the University of California School of Medicine graduate who, in the opinion of fellow students and faculty, exhibits the qualities of the true physician in his student clinical work. At the award ceremonies honorable mention was given to Leland James Harris of San Jose and William Bass of Piedmont.

Dr. Harry G. Parsons of San Francisco recently was appointed medical director of the Weimar Joint Sanatorium, Placer County, by the governing board of the institution. Dr. Parsons succeeded Dr. Mildred Thoren, retired.

* * *

Three recent **appointments to the faculty** of the Stanford University School of Medicine have been announced. Dr. Robert H. Alway was named professor of pediatrics and executive head of the department. Dr. Quentin M. Geiman was appointed professor of preventive medicine specializing in tropical public health, and Dr. Avram Goldstein professor and executive head of pharmacology. Dr. Goldstein fills a post that has been vacant since 1953 when Dr. Windsor Cutting became dean of the school of medicine.

SANTA CLARA

An $8,200 **grant in aid of cancer research** being carried on by Dr. Robert W. Noyes of the Stanford University faculty was announced recently by the Damon Runyon Fund.

* * *

Dr. Sidney Raffel, head of the department of bacteriology at Stanford University, recently received a grant of $600 from the Santa Clara County Tuberculosis Association to pay for half of the supplies needed this year for carrying on his studies of the tubercle bacillus.

GENERAL

The American Urological Association has announced that competition is open for its annual award of $1,000 (first prize of $500, second prize $300 and third prize $200) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been graduated not more than ten years, and to men in training to become urologists.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Statler Hotel, Boston, Massachusetts, May 28-31, 1956.

Full particulars may be obtained from the executive secretary of the association, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be in his hands before December 1, 1955.

* * *

The American College of Gastroenterology recently announced that its annual **course in postgraduate gastroenterology** will be given at the Shoreland Hotel, Chicago, October 27-29. The course will again be under the direction and co-chairmanship of Dr. Owen H. Wangensteen, professor of surgery of the University of Minnesota Medical School, who will serve as surgical coordinator, and Dr. I. Snapper, director of Medical Education, Beth-El Hospital, Brooklyn, N. Y., who will serve as medical coordinator. They will be assisted by a distinguished faculty selected from the medical schools.

Further information may be obtained from the American College of Gastroenterology, Department P.G., 33 West 60th Street, New York 23, N. Y.

POSTGRADUATE
EDUCATION NOTICES

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Announces the following summer courses:

Surgery of the Elbow and Shoulder—July 19 and 20, 1955.

Surgery of the Hand—July 21 and 22, 1955.

Recent Advances in Medicine—July 25-29, 1955.

Basic Techniques of Hypnosis—August 8, 9 and 10, 1955.

Advanced Techniques and Application of Hypnosis—August 10, 11 and 12, 1955.

Anesthesia—August 29, 30 and 31, 1955.

Contact: Thomas H. Sternberg, M.D., Director of Postgraduate Medical Education, U.C.L.A., Los Angeles 24.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

In San Francisco:

Conference on Applied Therapeutics—October 17, 18 and 19.

Conference on Gynecology and Obstetrics—October 20 and October 21.

Ophthalmological Conference—December 5 to December 7.

In East Oakland:

Medicine for General Practitioners—Tuesday evenings, September 20 to December 6.

In Berkeley:

Postgraduate Institute—Wednesday evenings, Herrick Memorial Hospital, October 19 through November 23.

In San Mateo:

Evening Lectures in Medicine—Thursday evenings, September 22 to December 15.

Contact: Office of Medical Extension, University of California Medical Center, San Francisco 22.

COLLEGE OF MEDICAL EVANGELISTS

Announces graduate courses:

General Surgery and Surgical Specialties—October 3 to June 10, 1956.

Internal Medicine—October 3 to June 10, 1956.

Otolaryngology—October 3 to June 10, 1956.

Contact: Chairman, Section on Graduate and Postgraduate Medicine, College of Medical Evangelists, 1720 Brooklyn Ave., Los Angeles 33.

CALIFORNIA MEDICAL ASSOCIATION, POSTGRADUATE ACTIVITIES LECTURE COURSES

North Coast Circuit:

Eureka—Monday, October 17, 24, 31, November 7.
Ukiah—Tuesday, October 18, 25, November 1, 8.
Woodland—Wednesday, October 19, 26, November 2, 9.
Napa—Thursday, October 20, 27, November 3, 10.

Sacramento Valley Circuit:

Dunsmuir—Monday, October 17, 24, 31, November 7.
Chico—Tuesday, October 18, 25, November 1, 8.
Marysville—Wednesday, October 19, 26, November 2, 9.
Auburn—Thursday, October 20, 27, November 3, 10.

Contact: C. A. Broaddus, M.D., Director of Postgraduate Activities, P.O. Box A-1, Carmel, California.

Medical Dates Bulletin

This bulletin of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association. In order that they may be listed here, please send communications relating to your future medical or surgical programs to: C. A. Broaddus, M.D., Director, Postgraduate Activities, P.O. Box A-1, Carmel, California.

AUGUST MEETINGS

State Board of Medical Examiners Oral Examination for Reciprocity Applications, Los Angeles, August 20.†

State Board of Medical Examiners Written Examination, Los Angeles, August 23-25.†

State Board of Medical Examiners Oral and Clinical Examinations for Foreign Medical School Graduates, Los Angeles, August 21.†

OCTOBER MEETINGS

California Society of Internal Medicine meeting at Biltmore Hotel, Santa Barbara, October 1, 1955.

Contact: Mildred D. Coleman, secretary, 384 Post St., San Francisco.

San Francisco Heart Association announces the Twenty-sixth Annual Postgraduate Symposium on Heart Disease, at St. Francis Hotel, San Francisco. October 5, 6, 7, 1955.

Contact: 604 Mission St., San Francisco 5.

San Diego County Heart Association Annual Symposium on Heart Disease, U. S. Naval Hospital, Auditorium, Balboa Park, San Diego, October 11.

Contact: H. Jack Hardy, executive secretary, 1651 Fourth Avenue, San Diego.

Los Angeles County Heart Association 25th Annual Symposium on Cardiovascular Diseases, Wilshire-Ebell Theater, Los Angeles, October 12 and 13.

Contact: Los Angeles County Heart Association, 316 So. Bonnie Brae Street, Los Angeles.

The 1955 Scientific Assembly of the California Academy of General Practice will be held in San Francisco, at the Sheraton-Palace Hotel, October 9-12, 1955.

Contact: William W. Rogers, executive secretary, 461 Market St., San Francisco.

State Board of Medical Examiners Written Examination, Sacramento, October 18-20.†

Mid-October—American Board of Psychiatry and Neurology Examinations, San Francisco.

Contact: David A. Boyd, M.D., Secretary, 102-110 Second Avenue, S.W., Rochester, Minn.

NOVEMBER MEETINGS

American Medical Association announces: Clinical Session, 1955, at Boston, November 29 to December 2, 1955.

State Board of Medical Examiners Oral Examination for Reciprocity Applications, San Francisco, November 12.†

State Board of Medical Examiners Oral and Clinical Examinations for Foreign Medical School Graduates, San Francisco, November 13.†

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*For information contact: Walter E. Batchelder, M.D., medical director, C.M.A. Cancer Commission, 467 O'Farrell Street, San Francisco.

†*For information contact:* Louis E. Jones, M.D., secretary-treasurer, California State Board of Medical Examiners, Room 536, 1020 N Street, Sacramento. (Note: Applications must be on file at least two weeks before examination dates.)

THE PHYSICIAN'S *Bookshelf*

POTASSIUM METABOLISM IN HEALTH AND DISEASE. Howard L. Holley, M.D., Department of Medicine, University of Alabama; and Warner W. Carlson, Ph.D., Department of Biochemistry, University of Alabama. Grune and Stratton, New York, 1955. 131 pages, $4.50.

Although there is little that is new in this monograph, the normal control of potassium metabolism, and the factors in disease which may alter body potassium levels are presented moderately well. In certain areas the authors do not appear to have had broad grass roots' experience with certain types of potassium and electrolyte problems. In addition, the role of potassium in enzymatic activities related to glucose and protein metabolism, and the interrelationships of potassium with other ions, are stressed. Clinical symptomatology and findings, plus electrocardiographic changes of high and low serum potassium levels, and/or decreased total body potassium are presented well. The weakest part of the monograph is the section on treatment of potassium deficits which shows lack of extensive experience in the correction of such deficits, particularly by the parenteral intravenous route.

* * *

PUBLIC RELATIONS IN MEDICAL PRACTICE. James E. Bryan, Administrator, Medical-Surgical Plan of New Jersey; Formerly Executive Officer, the Medical Society of New Jersey, Chairman of the Medical Society Executives Conference. The Williams & Wilkins Company, Baltimore, 1955. 301 pages, $5.00.

Since the third generation of Adam and Eve's offspring, homo sapiens has been blest or beset with relations. In the olden days they were referred to as rich or poor, but in the twentieth century a large number are made up of that peculiar entity known as "public." Public relations carries a host of definitions, the simplest one being "reputation." Reputation may be built or purchased, the former enduring and the latter evanescent. "The traditional ethics of the profession, its ancient ideal of service, its noble code of conduct—these are the immutable foundations upon which any public relations program must be based." The author uses these words in his introduction and refers to them many times in the succeeding chapters.

The personal relationship of doctor and patient, the financial relationship, the ethical, social and institutional relationships of the physician with his colleagues are dealt with. The relationship of physicians with prepaid medical care plans and finally the relationships of the physician with himself are dealt with.

The reading is not light, but there is no doubt that this book constitutes a mine of useful information for the young physician. The author is Administrator of the Blue Shield Plan in New Jersey and was formerly the Executive Secretary of the Medical Society of Westchester County for many years. He writes with clarity and sincerity. A frank discussion of corporate practice of medicine which appears in chapter nine will be of particular interest to all physicians in California, notably those on the full time staffs of nonprofit private hospitals.

"The tendency of certain hospitals to engage full time salaried physicians and surgeons in communities where the profession has adequate personnel to provide equally competent staff on a visiting basis clearly interferes with the normal opportunities of physicians to achieve leadership and recognition according to their professional abilities . . . The physician, like any other man, cannot serve two masters. If he is an employee of the hospital, he must first do the bidding of the hospital, and then he is no longer primarily the servant of the patient. It seems to me that such practices are bad for the patient in the long run."

The author further states, "I do not see how anyone could seriously argue that it would benefit the people if the control of medical practice were to pass out of the hands of medical practitioners and into the hands of hospitals. Yet, that is the inevitable result of such a tendency as we are now witnessing in some large medical centers . . . The responsibility of the individual physician to the individual patient is direct, unassignable, inescapable and indivisible. It is supported and enforced by law and by universal public opinion."

* * *

TEXTBOOK OF CHIROPODY—Second Edition. Margaret J. McKenzie Swanson, B.Litt., F.Ch.S., Co-Founder of Edinburgh Foot Clinic and School of Chiropody. The Williams and Wilkins Company, Baltimore, 1954. 268 pages, $5.00.

This book is, as the title states, primarily a textbook of chiropody for students of chiropody. In that sense it is quite complete and well illustrated. The author makes no attempt to cover the medical aspects of foot disease. Minor lesions which can be treated by the chiropodist are well described as well as orthodox methods applied by chiropody to correct these lesions. The treatment of club feet is not discussed nor are the various surgical procedures available for correcting foot disability considered.

* * *

THE CITY OF HOPE. Samuel H. Golter. G. P. Putnam's Sons, 210 Madison Ave., New York, N. Y., 1954. 177 pages, $3.50.

This is the story of the development of the hospital at Duarte, near Los Angeles, for the care of persons with tuberculosis and cancer. According to the author, about 40 years ago a young man of Jewish extraction died of pulmonary hemorrhage in a street in Los Angeles and following that incident funds were collected to house other unfortunate persons suffering from pulmonary tuberculosis. "In 1913 two tents were set up, one for patients, the other for a nurse . . . such were the humble and humanitarian beginnings of the City of Hope."

The book is in the form of a letter from the author to his daughter; it deals with the author's early life in the Eastern part of the United States and then in Los Angeles. It tells the story of the extension of the work of the hospital from the care of tuberculosis to the care of cancer. The author apparently regards leukemia as a disease separate from cancer and deals with it in a separate chapter. He is now the executive vice-president of the City of Hope and is, of course, an enthusiastic proponent of its program and its efforts.

Many of the patients at the City of Hope pay no fees and therefore, funds must be raised to defray the costs of their hospitalization. These funds are raised by various campaigns, some of them of highly sensational nature such as the October 1953 "Telethon." Whether these campaigns for a single institution conflict with those of the officially recognized agency attempting to deal with cancer research has been a matter of some debate and concern.

The hospital is operated under Jewish auspices, and reportedly has chartered auxiliaries all over the country. It apparently accepts patients without regard to creed or income and reflects in its growth the great development of that part of the state.

The book is illustrated with photographs of the hospital, its early staff, the author and his family and the more recently completed installation.

* * *

TEXTBOOK OF MEDICINE—By Various Authors—11th Edition. Edited by Sir John Conybeare, K.B.E., M.C., D.M.(Oxon.), F.R.C.P., Physician to Guy's Hospital, London; and W. M. Mann, M.D.(Lond.), F.R.C.P., Physician to Guy's Hospital, London. E. & S. Livingstone Ltd., Edinburgh and London, 1954. Distributed through Williams & Wilkins Co., Baltimore. 904 pages, $8.00.

The eleventh edition of this standard text for English students appears just two years after the tenth (CALIFORNIA MEDICINE, 77:358, Nov. 1952) and shows comparatively little change.

The reviewer finds considerable fault with the portions of the book dealing with therapy—which are often several years behind modern medical practice. To illustrate, (page 67) tetanus toxoid is decried for active immunization against tetanus despite the tremendous experience of both allied and German armies in World War II, and the outworn aphorisms about prophylactic antiserum in small dosage (3,000 units) are repeated. Hexamethonium and pentamethonium are advertised as the hypotensive drugs in most common use and no mention is made of rauwolfia. There are appendices on the antibiotics and adrenal steroids but they are woefully inadequate.

The use and evaluation of diagnostic laboratory tests also leaves something to be desired: For example, the authors fail to point out the great advantages of the amylase test in the recognition of acute pancreatitis (page 369).

In general, this book does not measure up to one of several good texts on the practice of medicine.

* * *

THE COAGULATION OF BLOOD—Methods of Study. Edited by Leandro M. Tocantins, M.D. Grune & Stratton, New York, 1955. 240 pages, $5.75.

This volume was written principally by members of the Panel on Blood Coagulation of the National Research Council, and its purpose is to solidify into presentable, if only temporary form, the headlong river of coagulation terms and tests. Certainly the techniques that are enumerated and briefly described in this book were formerly widely scattered throughout the literature, and so a real service has been performed in this collection of procedural details. Some will object to the various choices of inclusion and exclusion which have been practiced here, but it is believed that this collation will be of great help to all but the most partisan workers. It should be especially helpful to newcomers to the field of coagulation research and save them much time in standardizing methods. In adherence to the avowed intention of the work as a laboratory guide, there is no section on general discussion of blood coagulation and its disorders as a whole. Hence the book would not be a suitable purchase for practitioners and students, for whom a more general work such as Biggs and MacFarlane's "Human Blood Coagulation and Its Disorders," (C. C. Thomas, 1953), would be more in order. But as a manual of techniques in blood coagulation, plainly and accurately set forth, this volume will find a place in most medical laboratories.

* * *

THE HISTORY AND CONQUEST OF COMMON DISEASES. Edited by Walter R. Bett, M.R.C.S., L.R.C.P., F.R.S.L., F.S.A. Scott. University of Oklahoma Press, Norman, Okla., 1954. 334 pages, $4.00.

This attractive book consists of a series of articles by various authorities on a group of diseases for the most part unrelated except that they occur frequently. Thus we have acute and chronic communicable diseases, heart disease, Bright's disease, gallstones, appendicitis, epilepsy, cancer, and various endocrine disorders. The historical accounts are especially stimulating and there are excellent selected bibliographies. It is surprising how much of interest and importance can be told in a short space, and the book as well as being informative makes delightful reading.

* * *

THE YEAR BOOK OF DRUG THERAPY (1954-1955 Year Book Series). Edited by Harry Beckman, M.D., Director, Departments of Pharmacology, Marquette University Schools of Medicine and Dentistry. The Year Book Publishers, Inc., 200 East Illinois Street, Chicago, 1955. 592 pages, $6.00.

The Year Book of Drug Therapy continues to be a valuable book to keep the practitioner up-to-date on his therapeutics. This year's edition gives greatest emphasis to the antibiotics with the subjects of chest diseases and hypertension also receiving considerable study.

The editor's introduction serves as an excellent summary of the year's accomplishments and is commended to the reader.

* * *

DEPRESSION. Edited by Paul H. Hoch, M.D., New York State Psychiatric Institute, College of Physicians, Columbia University; and Joseph Zubin, Ph.D., New York State Psychiatric Institute, Department of Psychology, Columbia University. The Proceedings of the 42nd Annual Meeting of the American Psychopathological Association. Held in New York City, June, 1952. Grune & Stratton, New York, 1954. 277 pages, $5.50.

The content of this volume is primarily concerned with psychopathological problems associated with anxiety and depression. There is an excellent review by Franz J. Kallmann concerning the genetic principles in manic-depressive psychosis. That heredity may play an important role in the development of this mental illness is evidenced by his report concerning 27 monozygotic and 55 dizygotic twin indexed pairs with a total of 206 siblings and 16 half-siblings. The expectancy of manic-depressive psychosis varied from 16.7 ± 3.4 per cent for the half-sibs, to 22.7 ± 3.4 and 25.5 ± 6.1 per cent for the siblings and dizygotic co-twins, respectively, and to 100.0 per cent for the one-egg twin partners. As an aid in the early differential diagnosis between schizophrenia and manic-depressive psychosis, as well as between schizophrenia and psychoneurosis, Lewis and Piotrowski propose ten specific clinical psychiatric signs and they point out that nearly all areas of diagnosis were made not because of insufficient observation of symptoms but because of failure to interpret the diagnostic significance of the symptoms. Papers on the biochemical aspects of depression are presented by Max Reiss and Warren M. Sperry—the latter emphasizing that "Although mental disease presents, by far, the biggest problem in the field of medicine in this country, relatively little biochemical research is being directed toward it." Infantile depressions are described by Spitz, and children's reaction to the death of a parent by Keeler. The psychoanalytic interpretation of depressive patterns is presented by Rado, under the title of "Hedonic Control, Action-Self and the Depressive Spell." The physical therapies, as applied to depressions, are discussed by Alexander, Davidoff and Russ and Kalinowsky.

It is quite obvious that we are very far from a complete understanding of the etiology of depressive states, although a continuing investigation along psychologic, psychodynamic, physiologic, biochemical and cultural lines, such as this book presents, sheds further light on this very interesting field of psychiatry.

* * *

PEDIATRIC DIAGNOSIS. Morris Green, M.D., Assistant Professor of Pediatrics, Yale University School of Medicine; and Julius B. Richmond, M.D., Professor and Chairman of the Department of Pediatrics, University of New York College of Medicine. W. B. Saunders Company, Philadelphia, 1954. 436 pages, $10.00.

This is a text intended for students and practitioners to be used at the bedside or as a quick diagnostic aid in the office. It fulfills this function very well and employs two approaches to jogging the diagnostic memory of the reader.

The first half of the text is devoted to a discussion of anatomical regions and their normal and abnormal development. The second half of the text is given to a discussion of the possible significance of signs and symptoms. A final short section is devoted to health supervision from birth through adolescence.

A valuable feature of the book is the incorporation within the body of the text of up-to-date references, taken largely from those pediatric journals most commonly found in the offices of physicians.

It is probable this book will find its way as a useful tool into the library of most physicians dealing chiefly with children.

* * *

DIAGNOSTIC ADVANCES IN GASTROINTESTINAL ROENTGENOLOGY — Selected Methods, with Clinical Evaluation. Arthur J. Bendick, M.D., Director of Radiology, Beth Israel Hospital, New York. Grune & Stratton, New York, 1954. 131 pages, $6.00.

This monograph deals principally with certain aspects of double contrast techniques for the x-ray examination of the alimentary tract. In the preface, the author emphasizes that the book is not intended for beginners, but rather for those who have been conducting x-ray examinations of the alimentary tract for several years. There are ten chapters. The first deals with advances in x-ray equipment and the second with the technique of double contrast studies of the gastric mucosa. Then there are chapters dealing with diseases of the esophagus, the stomach, the duodenum, the small bowel and the colon. There is a chapter on decompression of the intestinal tract, one on diseases of the gallbladder and pancreas, and one on the x-ray examination of the newborn.

The differential diagnosis of many conditions is not stressed as much as one might expect; nor are the numerous and confusing anomalies of the alimentary tract given the mention which one might desire. It would seem, therefore, that the monograph is more suited for those beginning radiology than for experienced physicians, especially those who maintain contact with the current medical literature.

There are seventy-five illustrations, in positive form, and of good clarity. The author is Director of Radiology at the Beth Israel Hospital in New York. The printing and binding is excellent.

NERVOUSNESS, INDIGESTION AND PAIN (Popular Edition). Walter C. Alvarez, M.D., Emeritus Professor of Medicine, University of Minnesota (Mayo Foundation), Emeritus Consultant in the Division of Medicine, the Mayo Clinic. Harper & Brothers, New York, 1954 (Medical Edition, Paul B. Hoeber, Inc., 1943). 235 pages, $3.50.

This popular edition of Alvarez "Nervousness, Indigestion and Pain," gives an informal and intimate glimpse into the author's vast experience with functional disorders, particularly as they pertain to the gastrointestinal tract. The book is directly and simply written. It discusses the diagnosis and treatment of many common complaints from a practical, down-to-earth point of view. It can be understood by doctor and patient alike. Almost every page rewards the reader with a gem of clinical wisdom. The style makes for easy and entertaining reading. It is obvious that the author has a deep personal understanding of emotional problems. No practicing physician can fail to learn something from glancing through this book.

* * *

THE STUDY OF THE BRAIN—A Companion Text to the Stereoscopic Atlas of Neuroanatomy. Hyman S. Rubinstein, M.D., Ph.D., D.A.B.P.N., F.A.P.A., Attending Physician in Neurology and Psychiatry, United States Army Hospital, Aberdeen Proving Ground. Grune and Stratton, New York, 1953. 209 pages, $9.50.

This study of neuroanatomy is clear, concise and affords an excellent review of neuroanatomy. It has as its outstanding feature a detailed account of a plan of dissection of the brain and the pathways which serves with its companion text, "A Stereoscopic Atlas of Neuroanatomy," as an excellent study for those who wish to review this field. Its greatest field of usefulness would be to those individuals planning to carry out a gross dissection of the brain, rather than to serve as a reference book for neuroanatomy.

* * *

HANDBOOK OF MEDICAL TREATMENT — Fourth Edition. Edited by Milton J. Chatton, A.B., M.D., Director of Medical Institutions, Santa Clara County, California, Assistant Clinical Professor of Medicine; Sheldon Margen, M.A., M.D., Associate Research Biochemist, Clinical Instructor in Medicine; and Henry D. Brainerd, A.B., M.D., William Watt Kerr Associate Professor of Clinical Medicine; all from the University of California School of Medicine. Lange Medical Publications, Post Office Box 1215, Los Altos, 1954. 569 pages, $3.00.

This is the fourth edition since 1949 of this lithographed, paper-backed, pocket-sized volume on therapy and we are happy to endorse it again. A great many medical facts are packed into it, with the aid of liberal use of tables and telegraphic style. The authors have been diligent in keeping the book up to a high standard of modern practice.

It is primarily designed for the intern or student in hospital practice but is also convenient and suitable for the practitioner to take on his rounds.

* * *

INTRODUCTION TO PSYCHIATRY. O. Spurgeon English, M.D., Professor and Chairman, Department of Psychiatry, Temple University School of Medicine; and Stuart M. Finch, M.D., Assistant Professor of Psychiatry, Temple University School of Medicine. W. W. Norton, New York, 1954. 621 pages, $7.00.

Textbooks of psychiatry have been appearing in increasing numbers in recent years. This one presents the material of psychiatry in such a manner as to emphasize what the authors consider "the principles of dynamic psychiatry" as promulgated by Freud and is definitely oriented along psychoanalytic lines, ignoring for the most part the contributions of other schools of psychiatric thought.

After a short and superficial chapter on the history of psychiatry, the development and structure of the personality are described in terms of the oral, anal, genital, and latency periods; and the development of the Oedipus complex, the id, ego, and super ego. The various mechanisms of ego defense are elaborated with simple understandable examples from everyday life or clinical material. The outline suggested for recording the personal history follows the traditional pattern, but the mental status examination is the rather elaborate and ponderous form recommended by Karl Menninger and is not one that is apt to be generally adopted.

The chapter on child psychiatry is simply presented; various case histories are used suitably to exemplify the syndromes described in the text. The psychoneurotic and psychotic reactions are described adequately and in general there is more emphasis and elaboration of the psychotherapeutic approach to mental illness than is found in most of the standard texts. The mental illnesses associated with organic disease of the brain are, however, poorly defined and described, and the descriptions of the neuropathologic processes accompanying these inadequate and at times naive. As a text medical students and social work students may find this volume useful to them if the concepts formulated therein are developed and elaborated by their teachers in a clinical setting.

* * *

CLINICAL ROENTGENOLOGY—Volume II—The Head, Neck and Spinal Column. Alfred A. deLorimier, M.D., Radiologist, St. Francis Memorial Hospital, formerly, Commandant, Army School of Roentgenology; Henry C. Moehring, M.D., Radiologist, Duluth Clinic, Duluth, Minnesota, formerly, Director, School of Roentgenology, Army School of Roentgenology; and John R. Hannan, M.D., Radiologist, Cleveland, Ohio, formerly Director of Medical Training, the Army School of Roentgenology. Charles C. Thomas, Publisher, Springfield, 1954. 464 pages, $18.50.

As with the first of this four-volume series, the second volume, which covers the head, neck, spinal column, and also the teeth, has the same unusual and very comprehensive format. Not only are good x-ray illustrations presented along with a description of the roentgen manifestations of the various lesions, but of equal or even more importance, general considerations, clinical and laboratory corroborations, as well as points on differential diagnosis, are also included. For this reason the book is most valuable, for all the information which is likely to be needed has been compiled in one place.

This volume will prove to be an excellent source of information for students or doctors who are interested in the skull or neck. Even the most experienced radiologist will find it a handy reference to bring him up to date or to restore his memory on details about which he is almost certain, but not absolutely sure.

* * *

THE DIGITAL CIRCULATION. Milton Mendlowitz, M.D., F.A.C.P., Associate Attending Physician Mount Sinai Hospital, Research Fellow, Columbia University Division of Goldwater Memorial Hospital, New York City. Grune and Stratton, New York, 1954. 182 pages, $6.75.

Over a period of the past thirty years instrumentation has progressed to the point where studies of digital circulation have seemed to assume validity and meaning in the study of peripheral circulatory changes and as a reflection of central changes. These many and varied studies have not previously been brought together as a coherent presentation of the physiologic, pharmacologic and pathologic aspects as they have been revealed by detailed study.

This monograph presents the available data on digital circulation in an organized manner, pointing out the gaps in our knowledge and the direction which future investigators should pursue.

The volume flow through the fingers and toes and the factors influencing such flow are carefully discussed. The sympathetic nervous system, humeral changes in metabolism and in blood viscosity, as well as heat and cold, are carefully considered. The effect of barbiturates, alcohol, anesthetics and narcotics, as well as the new drugs with direct autonomic control, such as Rauwolfia serpentina, the tetraethylammonium salts, the imidoazoline substances, and many others, are carefully listed as to the site of action on the autonomic nervous system as well as dosage and tolerance.

The largest single section is devoted to a description of methodology including capillaroscopy, digital blood pressure, oscillometry, skin temperature measurements (calorimetry), plethysmography (pneumatic, photoelectric, impedence), oximetry and polarography. The discussion of peripheral vascular diseases and their physiopathology as related to digital flow is well done and concise. Scleredema, Raynaud's disease, arteriosclerosis, trench foot and frost bite are examples of the subjects considered.

Dr. Mendlowitz has had certain particular interests such as the clubbing of the fingers and pulmonary osteoarthropathy, as well as hypertension and sympathectomy. These are discussed in relation to digital blood flow changes and methods of study.

This book presents a great of information which is extremely technical and is suited only to the physician who has had considerable background in the study of circulatory diseases. This text is not one for general medical consumption but is one which probably would have its greatest value among those who are concerned in the study and treatment of circulatory diseases and especially those who are involved in medical research in the circulatory field. For the physician or researcher in the field of vascular disease this presents not only an excellent compendium of the extant information in regard to digital blood flow, but also an unusually fine bibliography of over six hundred references and an excellent index by an experienced physician and researcher.

* * *

THE TECHNIQUE OF PSYCHOTHERAPY. Lewis R. Wolberg, M.D., Director, Postgraduate Center of Psychotherapy, Associate Clinical Professor of Psychiatry, New York Medical College, Grune and Stratton, New York, 1954. 869 pages, $14.75.

Perhaps the most adverse reaction to this work will be encountered by the reader in the form of awe and dismay when he first glimpses the formidable size of the tome. Only brief investigation and perusal, however, should convince the courageous and interested inspector of the rewards to be gained for the reading. The work introduces a long absent but needed member in the ranks of psychiatric literature, namely, an impartial but organized and comprehensive survey of various approaches and techniques in psychotherapy. This is by no means limited to the medical specialist in the field but includes considerable material of value to other physicians and the collaborative disciplines in psychiatry.

The author initiates by recognizing some of the obstacles and prejudices to be surmounted in such a project. No attempt is made to stylize any particular approach, to proselytize towards any particular school or to serve as an exponent for any particular brand or "kind" of psychiatry. Rather, a major purpose here is to "include the presentation of a flexible framework within which the individual may develop or augment his therapeutic skill," irrespective of his type of orientation, his point of time in training or subscription to a particular prejudice. It goes without saying that such an approach will have pleasurable appeals for those prejudiced toward eclecticism. The author describes in vignette form the various schools of psychiatry and their particular operational emphasis and mode of approach. This is supplemented by satisfactory criticism of each. The abstinence from esoteric excursion or polemic involvement in such complex and disputed territory is refreshing indeed.

The discussion of techniques is subsumed under three general types, (1) supportive therapy, (2) insight therapy with re-educative goals, and (3) insight therapy with reconstructive goals. Supportive therapy describes such measures as guidance, externalization of interests, environmental manipulation, emotional catharsis and desensitization, shock and convulsive therapy, drug therapy, etc.

Re-education therapy defines the kinds of insight and nature of the goals to be achieved with this approach. Described in theory and mechanism are such oft heard names as relationship therapy, distributative analysis and synthesis, nondirective "client centered" therapy, re-educative group therapy, etc. Reconstructive therapy concerns principally the analytic or near-analytic approaches. This includes discourse on Freudian and non-Freudian psychoanalysis and psychoanalytically oriented psychotherapy. This is followed by a review of the similarities and differences of all the foregoing. This reviewer found the chapter on "What is the 'Best' Kind of Psychotherapy" one of the best in the book. Its content should lend relaxation to all advocates of the various therapies who may tend to view the "other" approaches with defensive, disputive or invidious eye. Evaluation is given the requirements and features to be desired in the therapist as well as evaluation of the prospective patient, his assets, limitations and the kind of treatment most probably suited to his personality profile. Space limitations prohibit more than mention that the author develops the technique of psychotherapy in each of the three principal categories from the beginning contact and progresses through the various phases to termination. The multiple problems to be considered, the hazards anticipated and the inevitable disappointments are discussed in detail with appropriate case illustrations.

A closing word should comment on the style and quality of the material offered. The content is easily read, the ideas are well developed and not infrequently graphically illustrated. Most of the presentation is eclectic in nature and the criticisms by the author are excellent. Most major aspects of psychotherapy are covered with the exception of the advanced training phases in the various schools of psychiatry.

* * *

PRINCIPLES OF INTERNAL MEDICINE — Second Edition. T. R. Harrison, Raymond D. Adams, Paul B. Beeson, William H. Resnik, George W. Thorn, and M. M. Wintrobe. The Blakiston Company, Inc., 1954. 1703 pages, 87 pages of Index, Student 1 Vol. Ed., $16.00 (Professional 2 Vol. Ed. boxed, $21.00).

The first edition of this book was highly recommended (CALIFORNIA MEDICINE, 74:4, April 1951) as a text with a fresh approach to internal medicine, unhampered by the tradition of what a textbook should be like. Our favorable opinion is kept for the second edition.

The general arrangement of the first edition has been retained: The text includes successively discussions on an introductory approach to the patient, the cardinal manifestations of disease, the basic mechanisms of disease and, finally, a consideration of specific disease processes. There has been extensive revision of many chapters and others have been completely rewritten. This applies particularly to those chapters dealing with the basic mechanisms of disease and to those dealing with specific diseases and disorders of organ systems.

The general principles of therapy have been grouped together in a new section entitled "The Care of the Patient." This covers discussions of problems likely to occur in any gravely ill patient. It precedes the portion of the book dealing with specific diseases.

A new and useful series of chapters has been written on the more common manifestations of disordered nervous system function. One wonders why it does not come later in the book, classed under diseases of organ systems.

The reviewer feels that the editors have done an outstanding job in the presentation of a modern teaching volume. He recommends it most strongly for students but also to those on hospital staffs and in medical practice. In passing it should be mentioned that the one volume text, although two hundred pages longer than its first edition counterpart, is a commendable half an inch thinner and just so much less bulky.

* * *

PERIPHERAL VASCULAR DISEASES—2nd ed. Edgar V. Allen, B.S., M.A., M.D., M.S. in Medicine, F.A.C.P.; Nelson W. Barker, B.A., M.D., M.S. in Medicine, F.A.C.P.; and Edgar A. Hines, Jr., B.S., M.A., M.D., M.S. in Medicine. All from the Section of Medicine, Mayo Clinic. With Associates in the Mayo Clinic and the Mayo Foundation. W. B. Saunders Company, Philadelphia, 1955. 825 pages, 316 illustrations, 7 in color, $13.00.

This book is one of the joys that pass occasionally across a reviewer's desk. To apply an overworked term where it really belongs, this is one of the "medical classics." Like its predecessor published in 1946, this second edition reflects the vast experience of the authors and their colleagues at the Mayo Clinic. Sections have been added on aortography, coarctation of the aorta, hypertensive ischemia ulcers of the legs, and technique of sympathectomy, surgery of varices, aortic aneurysm and vascular injuries. A section on hypertension would be appreciated but one must agree with the authors that this subject deserves an entire book in itself. On the other hand, one might wonder about including a chapter on purpura; while an excellent section and strictly speaking, in part at least a vascular disease, one wonders about its inclusion for it is not generally considered among peripheral vascular diseases. In addition to the usual vascular disorders, there are sections on scleroderma, periarteritis and other local and disseminated arteritis, and the scalenus anticus syndrome. The surgical treatment section written by their colleagues has been considerably expanded. The illustrations are excellent and profuse. The text is noteworthy for its readability, and the index makes it an excellent reference volume. This book is outstanding in its field and should be on the library shelves of all general practitioners, internists, surgeons, orthopedists and even dermatologists.

* * *

THE VOICE OF NEUROSIS. Paul J. Moses, M.D., Assistant Clinical Professor in charge of Speech and Voice section of the Division of Otolaryngology, Stanford University School of Medicine, San Francisco, Grune and Stratton, New York, 1954. 131 pages, $4.00.

This is an erudite treatise on what might be called the nonverbal aspects of verbal communication. It should prove highly valuable to speech therapists and otolaryngologists and should increase the awareness of psychologists and psychiatrists and lead to a fuller appreciation of the influence of the personality upon speech and speech disorders. The lay reader may be misled by the tendency toward the making of generalizations but this is of lesser importance to the sophisticated reader.

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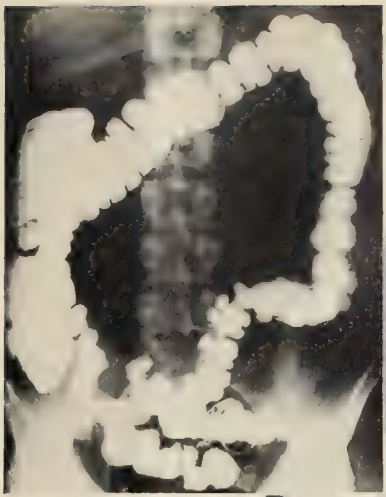

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Physician Licensing Reaches New High

The number of new physicians added to the nation's physician population reached a record high in 1954, according to figures released recently by the American Medical Association Council on Medical Education and Hospitals.

Boards authorized to license physicians to practice gave 15,029 licenses during the year, an increase of 595 over the previous year. Excluding duplications of candidates examined in more than one state, the actual total of new license holders reached 7,917.

The report said that deducting the 3,667 physician deaths in 1954, there remained 4,250 new physicians in practice since the beginning of the year. This was 641 more physicians than were added to the population in 1953.

The council's report appeared in a recent issue of the *Journal of the American Medical Association.* It said that the physician population increase occurred in 31 states. The licenses issued brought to 222,773 the total of licenses granted since 1935.

Registration of physicians (including persons licensed in 1954 who took exams in previous years) reached a level exceeded only by that of 1946, the all-time record year. From 1946 to 1952, the numbers registered decreased annually and then took an upswing. However, throughout all these years the totals were higher than in the pre-World War II years.

The report also showed that failures of candidates to pass license exams remained low. Only 4.2 per cent of the 5,999 American medical school graduates taking exams last year failed to get licenses, and 4.8 per cent of the 126 Canadians failed. The largest part of the failures occurred among graduates of foreign faculties, schools not approved by the council, and schools of osteopathy. The total failure rate of 12.7 compares to the previous low of 5.7 in 1930 and the previous high of 21.7 in 1908.

The 15,029 licenses granted included a number given on the basis of interstate reciprocity and other qualifications. Licenses by examination actually were given to 6,827 persons. These candidates came from 73 medical schools in this country and 11 in Canada. The rest were from foreign schools, unapproved schools, and schools of osteopathy.

The largest number of new license holders came from California, which licensed 1,975 physicians. Next was New York with 1,498, followed by Illinois, Ohio, Pennsylvania, and Texas with over 500 each; Delaware, Idaho, Nevada, North and South Dakota, and Vermont with less than 50 each. The smallest number was 24 in Wyoming.

The largest number of licenses granted to graduates of one school was the 207 given to graduates of the University of Illinois College of Medicine. Largest number of private school graduates licensed

(Continued on Page 58)

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Physician Licensing Reaches New High

(Continued from Page 54)

was 175 from Tulane University. Twenty-six schools had more than 100 licensees. Thirteen schools turned out candidate groups without a single failure in board examinations.

These were Stanford University, Georgetown University, Chicago Medical School, State University of Iowa, Wayne University, Albany Medical College, and the Universities of Buffalo, Rochester, North Carolina, Utah, Washington, Southern California, and Colorado.

Foreign school graduates, including both American and foreign born persons, took 1,642 exams in 1954, with 943 of the candidates passing. The actual increase to physician population was 772, bringing the total of new foreign-trained physicians to 2,784 licensed in the past five years.

Illinois had a corner on the foreign graduate market, examining 435 and passing 216. New York was next with 413 exams and 184 successful candidates. Ohio and California followed in order.

The addition of physicians to the population on

(Continued on Page 66)

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REFERENCE: 1. Kirwin, T. J., Lowsley, O. S., and Menning, J., *Am. J. Surg.* **62**:330-335, December 1943.

Sponge Rubber Boot Made for Varicose Vein Patients

Two New York state physicians have developed a zippered sponge rubber boot to relieve severe varicose veins of the lower leg.

Drs. Walter G. Gasner, Mt. Vernon, N. Y., and Maurice J. Costello, New York City, report initial results with the innovation in a recent issue of the *Journal of the American Medical Association.*

In two women, severe varicose infections healed with a month's wearing of the boot. It healed a painful quarter-size varicose ulcer, present for five years on the leg of a 55-year-old woman. A three-year-old varicose skin eruption on the legs of a 52-year-old woman also healed, enabling her to walk without difficulty. Swelling in the legs also disappeared.

The boot is made of sponge rubber a quarter-inch thick, which is placed around the leg and pencil-marked to fit. The rubber then is cut out with a razor blade, and edges closed with adhesive tape and a zipper. A "horse track" bandage is wrapped around the boot after it is put on, for additional support.

The action of the leg muscles against the sponge rubber causes a "pump-like" action while walking, the physicians said.

Synthetic Wetting Agent Found to Have Other Use

A synthetic wetting agent which can make a duck sink also can be a useful laxative, two Michigan physicians say.

Drs. James L. Wilson and David G. Dickinson, Ann Arbor, reported on the unusual use of the material in a recent issue of the *Journal of the American Medical Association.*

The material, dioctyl sodium sulfosuccinate (Aerosol O.T.) was developed 15 years ago. It was shown that a small concentration of this material in water made it so "wet" that ducks in the water sank.

The Michigan physicians said that the material's usefulness in patients suffering even severe constipation was based on its ability to mix water and fatty material and therefore dissolve hard masses.

They said they had used the material for many hundreds of patients in the past 12 years and found it has "wide usefulness" because a good laxative effect can be obtained without the danger of ill effects, even when used for long periods.

It is especially useful in children suffering disorders of the intestinal tract. They also have found it helps relieve constipation in patients with poliomyelitis, especially the severely paralyzed who require artificial lungs.

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(1) Payne, R. W.; Shetlar, M. R.; Farr, C. H.; Hellbaum, A. A., and Ishmael, W. K.: J. Lab. & Clin. Med. *45*:331, 1955. (2) Bunim, J. J.; Williams, R. R., and Black, R. L.: J. Chron. Dis. *1*:168, 1955. (3) Holbrook, W. P.: M. Clin. North America *39*:405, 1955.

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Physician Licensing Reaches New High

(Continued from Page 58)

the basis of geographical areas was listed in the following order, beginning with the largest number:

Middle Atlantic states, 1,680 (New York, New Jersey, Pennsylvania); East North Central, 1,607 (Ohio, Indiana, Illinois, Michigan, Wisconsin); South Atlantic, 1,074 (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida); West North Central, 892 (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas); Pacific, 759 (Washington, Oregon, California); West South Central, 711 (Arkansas, Louisiana, Oklahoma, Texas); New England, 489 (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut); East South Central, 477 (Kentucky, Tennessee, Alabama, Mississippi); Mountain, 171 (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada), and the Territories and possessions, 57 (Canal Zone, Guam, Hawaii, and Puerto Rico).

Prednisone Shows Promise In Rheumatic Diseases

Preliminary trial of a new drug, prednisone, indicated it may be "four to five times more potent" than two other compounds now used to relieve pain and other symptoms of rheumatic diseases.

Drs. Jack R. Dordick and Edward J. Gluck, Beth Israel Hospital, New York, described the use of the drug in a small group of patients, in a recent issue of the *Journal of the American Medical Association.*

They said these first results show the new hormone compound may have distinct advantages in

(Continued on Page 70)

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Each GRAVIDOX tablet contains: Thiamine HCl—20 mg., Pyridoxine HCl—20 mg. Each cc. of GRAVIDOX parenteral solution contains: Thiamine HCl—50 mg., Pyridoxine HCl—50 mg.

Average dose: 5 to 12 tablets daily, in divided doses, at times when vomiting is less likely to occur; or 1 cc. parenteral solution 2 or 3 times weekly.

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Each 30 cc. of Donnagel contains:

Hyoscyamine Sulfate	0.1037	mg.
Atropine Sulfate	0.0194	mg.
Hyoscyamine Hydrobromide	0.0065	mg.
Phenobarbital (¼ gr.)	16.2	mg.
Kaolin (90 gr.)	6.0	Gm.
Pectin (2 gr.)	130.0	mg.
Dihydroxy aluminum aminoacetate (7½ gr.)	0.5	Gm.

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On the other hand, Doctor, maybe there's a reason. Maybe it's that Gene was selected as a Boyle representative because he fitted into the same mould of high standards required of all Boyle men.

Gene is married, has two fine children, lives in his own home in Fircrest, Washington. He's had a fine education that included a B.Sc. at Seattle U, graduate work in biochemistry at Portland U and work in medical technology at Tacoma General Hospital. Not too unlike some other Boyle men, is he, Doctor.

And when Gene isn't out detailing doctors between Seattle and Olympia, he's spending his week-ends playing golf or saltwater fishing with his family on beautiful Puget Sound. He gets around socially, too, belongs to the Elks, Toastmasters, Seattle U Alumni Group . . . all characteristics similar to those possessed by other Boyle representatives.

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Fireproof Clothes Urged for Children

Ignited clothing caused almost half of severe burns of children in one hospital over three decades, a North Carolina doctor has revealed. He urged that cotton used in children's clothing be made fireproof.

Fireproofing cotton would be a "logical" step in burn prevention, Dr. E. E. Bleck, Durham, N. C., said in a recent issue of the *Journal of the American Medical Association,* since it is the most most popular as well as the most flammable of children's clothing materials. While no practical permanent fireproofing method now exists, "public demand" might spark development, he said, adding that "people can and should be taught to buy safety for their children."

A survey of 344 severe burn cases among children at North Carolina Orthopedic Hospital, Gastonia, over a 32-year period revealed that 46 per cent were burned by flaming clothing. Their clothes usually ignited at an open fireplace, and less often from a trash fire or playing with matches. Most of them were three to six years, suffered complete skin burns over one-fifth of the body, and had to spend over seven months in the hospital.

"In terms of hospital days and expenditure of public funds, the group in whom the ignition of clothing was the main factor accounted for 31,466 days (estimated $188,796)," he said. "In terms of human misery and death no statistics can be given."

Other important causes of children's burns were direct contact with hot stoves, hot ashes or flames, gasoline or kerosene, and hot liquids. Falls into an open fireplace accounted for most direct contact fires. Inquisitive two- and three-year-olds scalded themselves overturning pots of boiling water from stoves or by falling into tubs of hot water. Many early adolescents suffered extensive body burns from careless handling of gasoline and kerosene. Burns from electrical appliances and wiring were few, partly because people have learned to be cautious about them, and because appliance manufacturers have been concerned with public safety, he said.

"It has been estimated that about 40,000 to 70,000 burns occur per year. Due to the vast improvements in the treatment of initial burn shock, about 50 to 60 per cent of these burned children are surviving," Dr. Bleck said. "Thus, those persons who formerly would have died as the result of a severe burn now present an ever-increasing problem of care, handicap, and disability as the result of their survival.

"Prevention would seem to be the next logical goal, since, even though a patient survives a 40 per cent full thickness burn, a long period of pain and hospitalization follows for the necessary skin grafting, the result of which is satisfactory but at best only a fair substitute for normal skin. In addition, some of these patients have a lifetime disability.

(Continued on Page 78)

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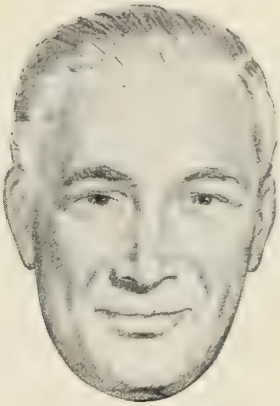

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DOSAGE: Simply two 2 mg. tablets at bedtime. After full effect, one tablet usually suffices.

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Finnerty, F.A., Jr.: Am. J. Med. *17*:629 (Nov.) 1954.

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". . . [Rauwiloid] produces certain desirable effects such as mild sedation without somnolence and a general sense of well-being . . ."

Livesay, W.R., et al.: J.A.M.A. *155*:1027 (July 17) 1954.

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Lipsett, M.B., et al.: California Med. *81*:412 (Dec.) 1954.

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"Its [Rauwiloid's] relaxing action may be responsible in part for the marked symptomatic relief it affords, especially in anxious, neurotic, hypertensive patients."

Wilkins, R.W.: Mississippi Doctor *30*:359 (Apr.) 1953.

Prednisone Shows Promise In Rheumatic Diseases

(Continued from Page 66)

treating patients with joint pain, tenderness, stiffness, and inflammation from rheumatoid arthritis, and patients with rheumatic heart disease or gout. Prednisone (Meticorten) appeared to have fewer side-effects than cortisone compounds, which have been used for these diseases.

The physicians treated 15 patients, including 12 with rheumatoid arthritis. All of them previously had received numerous other kinds of treatment with only slight relief. Within one day, the arthritis patients, after taking prednisone, reported disappearance of pain and lessening of stiffness. In a few days muscle pain and stiffness disappeared, and patients were able to walk, dress, and feed themselves with little or no pain. Seven of the 12 showed improvement in walking.

When prednisone therapy was stopped, symptoms returned and in most patients were as severe as before treatment. Improvement returned when treatment was resumed, the physicians said.

Side-effects of the drug were not serious and did not interfere with treatment except in one case. The physicians pointed out that the side-effects might be potential hazards and further studies of the drug may disclose limitations. However, they said they feel it is a valuable agent for treatment in these diseases.

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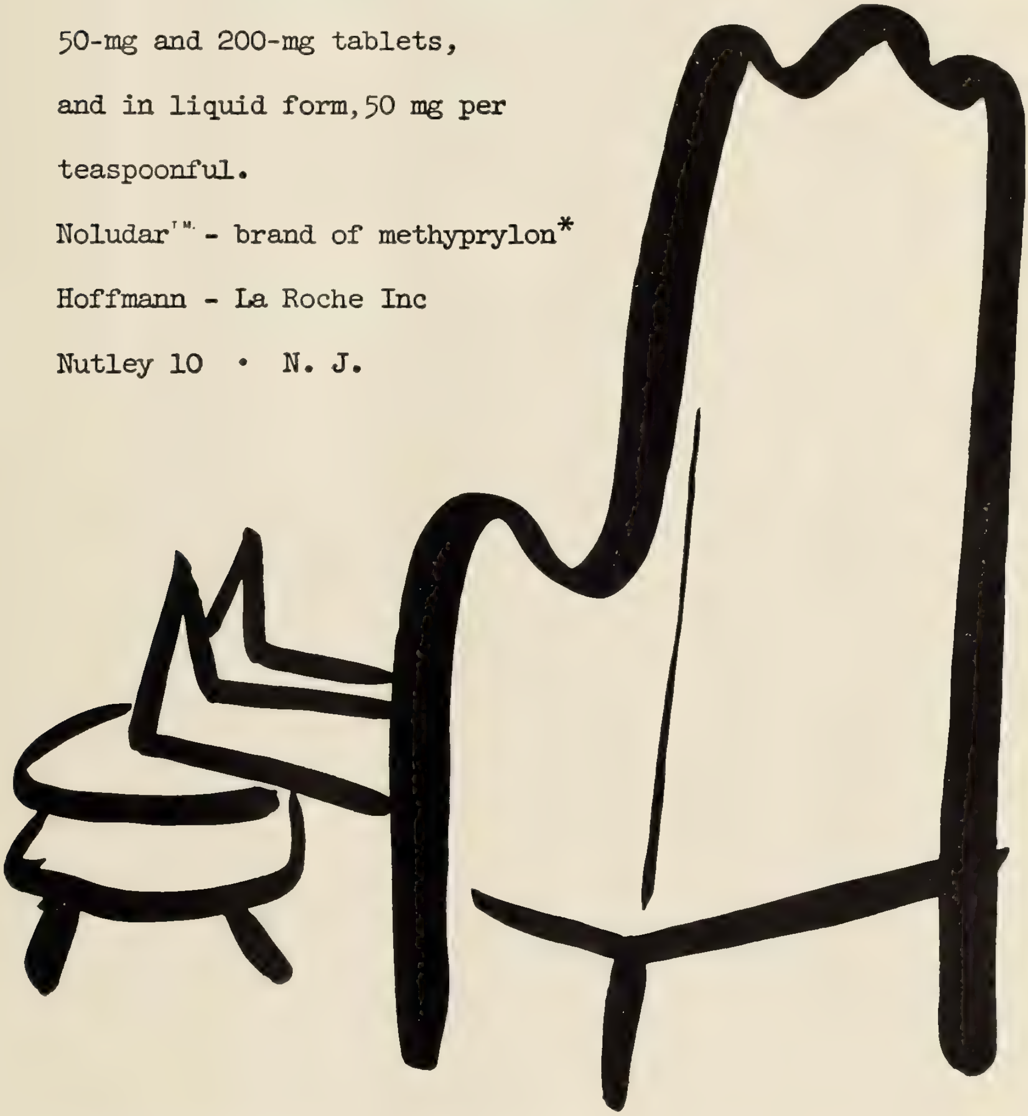

* 3,3-diethyl-5-methyl-2,4-piperidinedione

New Method Devised for Storing Corneas

Animal experiments indicate that a new vacuum pack method of preserving corneas may make human corneal transplants more readily possible.

The report on transplants of the cornea, clear covering over the iris and pupil of the eye, was made by two Army physicians in a recent issue of *Archives of Ophthalmology*, published by the American Medical Association. They said ability to preserve donated corneas without damage for some time may prevent difficulties previously caused by deterioration during storage. It also may alleviate the problem of not always being able to find donors just when they are needed.

In corneal transplant operations, the section needed is removed from a donor's eye and used to replace the damaged cornea of another. Stored corneas used in such operations sometimes became cloudy or failed to "take" on the patient's eye.

The Army physicians, Lieut. Col. Joel N. McNair and Col. J. H. King, Jr., of Walter Reed Medical Center, Washington, D. C., said their experiments with cats resulted in successful grafts which remained clear.

Entire corneas removed from cats' eyes were dehydrated and vacuum packed in glycerin. Some were stored as long as four months in an airtight container at room temperature. When taken out of storage and transplanted, the corneal grafts became transparent and have remained clear for 10 months. In some cases it was hard to tell the normal eye from the repaired one.

"This method of storing corneas at room temperature may have wide application in the future in making human corneas more readily available and thus prevent the shortage and waste that exists at present," the physicians said.

Successful human corneal transplants recently have been performed with corneas frozen and stored at extremely low temperatures in glycerin-saline solution.

In the animal experiment, the physicians carried this process a step further by removing all water from the corneas and placing them in about 100 per cent glycerin. They said this left the corneal cell structure undisturbed and prevented the damage sometimes caused by crystallization of water on freezing.

Physician Urges New Battle on Microbes

It might be possible someday to control body processes and chemical changes so that man can "live at peace" with infectious organisms always present in his body, a New York scientist has predicted.

Rene J. Dubos, Ph.D., said in a recent issue of the *Journal of the American Medical Association* that many disease organisms may live in a man's body throughout his life without showing any effects.

However, some upset in the balance of the body's physical and chemical processes may bring these organisms into action and result in disease. This may happen because of stress, the weakening effect of other diseases, prolonged treatment with certain drugs, improper food, injury, or even childbirth. It may result in serious illness or simply "the small miseries of everyday life," Dr. Dubos said.

He said the "great plagues of the past have been brought under some form of control," and microbial diseases "no longer occupy as they once did the most prominent place as causes of death." But microbial diseases have not been conquered, since the organisms that inhabit the body unnoticed are an "inescapable" part of man's biological world. For this reason, Dr. Dubos said he believes the center of interest in infectious diseases is likely to shift soon from the control of plagues to the discovery of ways to control these latent organisms.

One recent discovery that throws some light on this problem is that farm animals often gain weight more rapidly and use their food more effectively if the diet includes certain antimicrobial drugs. This might be because the drugs modify the activities of the ever-present organisms in the intestines and lower their ill effects. He said it appears that animals fed a "supposedly adequate diet" can suffer from "mild but constant intoxication" that retards growth without showing other symptoms. The same may be true of man.

He said he fears that not much progress will be made in the near future in wiping out such microorganisms, partly because most members of the population will continue to carry organisms that are a potential threat to health. This must be accepted, Dr. Dubos said, but better techniques to prevent or correct the damage they cause can "certainly" be developed. Eventually scientists may be able to understand the process by which man lives with these organisms without becoming ill.

"On the basis of this knowledge it might some day become possible to design procedures of metabolic control that will help man live at peace with microorganisms," he said.

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Fireproof Clothes Urged for Children

(Continued from Page 68)

"Fireplaces should have fireguards; handles of pots and pans on the stove should be turned in so that the young child cannot pull them down; no adult with a small child in the house should keep a pan of hot liquid on the floor. Certainly caution using gasoline and kerosene is an evident necessity. The use of these liquids to start fires should be condemned with a vigorous public education campaign."

Heart Association Enlists Physicians' Help

The American Heart Association is launching an intensive rheumatic fever prevention campaign and is enlisting the help of state and county medical societies. Letters to presidents and secretaries of state medical associations will go out shortly from the heart association's New York office.

The association already has completed the first step of its nationwide campaign. This was done by mailing a statement to more than 100,000 physicians. The statement was entitled: "Prevention of Rheumatic Fever and Bacterial Endocarditis Through Control of Streptococcal Infections."

The association is embarking on a campaign of educating the general public to gain its cooperation with the family physician. This is being done through pamphlets, news releases, films, and other audiovisual aids.

State and county medical societies in setting up their scientific meetings may want to incorporate the subjects of prevention and diagnostic criteria for rheumatic fever. The heart association has available a roster of outstanding speakers on the subject.

A scientific exhibit on the prevention of rheumatic fever for use in medical scientific meetings now is being prepared. Professional pamphlets and public educational materials also are available by writing to Dr. Charles D. Marple, Medical Director, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

—*The A.M.A. Secretary's Letter*

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*Actual statement of patient

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PRO-ACET cleanses the vaginal vault by dispersing mucus and cellular debris with superior wetting action for penetration. Clinically Tested Acid Detergent Douching.[1] Detergents have been shown to have a "toxic action upon the bacterial protoplasm after it has penetrated" the cell.[2]

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Write for information about application of Pro-Acet in your examining room.

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DIRECTIONS: To prepare vaginal douche, add one teaspoonful of PRO-ACET Concentrate to each quart of warm water and MIX WELL.
Formula for Pro-Acet Concentrate: Citric Acid, 2.5%; Acetic Acid 4.0%; Lactic Acid 2.0%; Sodium Lauryl Sulfate 3.0%; Dextrose 5.0%; Lactose (beta) 2.5%; Sodium Acetate 2.5%; Methyl Paraben 0.2%; all chemicals U.S.P. in a solution of Distilled Water.

1. Devoe, R. W., & Footer, W., California Medicine, 80:300 (1954).
2. Gershenfeld, Louis, and Milanick, Vera E., "Bactericidal and Bacteriostatic Properties of Surface Tension Depressants," Am. J. Pharm., 113:306.

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Tetracyn-SF and Terramycin-SF are formulated to provide the minimum daily dose of each antibiotic (1 Gm. of Tetracyn or Terramycin) plus the stress vitamin formula recommended by the National Research Council.

1. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, Prepared in Collaboration with the Committee on Therapeutic Nutrition, Food and Nutrition Board, National Research Council, Washington, D. C., 1952.
2. Martí-Ibáñez, F: Antibiotic Med. *1*:247 (May) 1955.
3. Dumas, K. J.; Carlozzi, M., and Wright, W. A.: Antibiotic Med. *1*:296 (May) 1955.

*Trademark for the vitamin-fortified antibiotics provided by Pfizer.

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BOOKS RECEIVED

ANXIETY AND STRESS—An Interdisciplinary Study of a Life Situation—Harold Basowitz, Harold Persky, Sheldon J. Korchin, Roy R. Grinker. From the Institute for Psychosomatic and Psychiatric Research and Training of the Michael Reese Hospital, Chicago. The Blakiston Division, McGraw-Hill Book Company, New York, 1955. 320 pages, $8.00.

BONE AND JOINT X-RAY DIAGNOSIS—Max Ritvo, M.D., Assistant Clinical Professor of Radiology, Harvard Medical School. Lea & Febiger, Philadelphia, 1955. 752 pages, 568 illustrations, $20.00.

BREAST CANCER AND ITS DIAGNOSIS AND TREATMENT—Edward F. Lewison, B.S., M.D., F.A.C.S., Assistant Professor of Surgery, Johns Hopkins University School of Medicine, The Williams and Wilkins Company, Baltimore, 1955. 478 pages, $15.00.

CARDIAC AUSCULTATION — Including Audio-Visual Principles—J. Scott Butterworth, M.D., Associate Professor of Medicine; Maurice R. Chassin, M.D., Assistant Professor of Clinical Medicine; and Robert McGrath, M.D., Associate Professor of Clinical Medicine, all from the New York University Post-Graduate Medical School, Grune and Stratton, New York, 1955. 111 pages, $4.50.

CEREBRAL VASCULAR DISEASES—Transactions of a Conference Held Under the Auspices of The American Heart Association, Princeton, New Jersey; January 24-26, 1954—Irving S. Wright, Chairman and E. Hugh Luckey, Editor. Grune and Stratton, New York, 1955. 167 pages, $5.50.

HANDBOOK OF PEDIATRICS—Henry K. Silver, M.D., Associate Professor of Pediatrics, Yale University School of Medicine; C. Henry Kempe, M.D., Assistant Professor of Pediatrics, U.C. School of Medicine, and Henry B. Bruyn, M.D., Assistant Professor of Pediatrics and Medicine, U.C. School of Medicine and Assistant Clinical Professor of Pediatrics, Stanford University Medical School. Lange Medical Publications, Los Altos, 1955. 548 pages, $3.00.

HYPOPHYSEAL GROWTH HORMONE, NATURE AND ACTIONS, THE—Editors Richmond W. Smith, Jr., M.D., Physician-in-Charge, Division of Endocrinology, Henry Ford Hospital, Detroit; Oliver H. Gaebler, M.D., Head, Biochemistry Department, Edsel B. Ford Institute for Medical Research, Detroit; and C. N. H. Long, M.D., Sterling Professor of Physiology, Yale University School of Medicine, New Haven. The Blakiston Division, McGraw-Hill Book Company, Inc., New York, 1955. 576 pages, $12.00.

MINOR SURGERY—John E. Sutton, M.D., F.A.C.S., Assistant Clinical Professor of Surgery, Cornell University, Medical College. Landsberger Medical Books, Inc., Distributed solely by The Blakiston Division of the McGraw-Hill Book Co., 330 West 42nd Street, New York 36, N.Y., 1955. 334 pages, $7.00.

MORBIDITY IN THE MUNICIPAL HOSPITALS OF THE CITY OF NEW YORK—Marta Fraenkel, M.D., and Carl L. Erhardt, Russell Sage Foundation, New York, 1955. 229 pages, $4.50.

OBSTETRICS — 11th Edition — J. P. Greenhill, M.D., Senior Attending Obstetrician and Gynecologist, The Michael Reese Hospital, Professor of Gynecology, Cook County Graduate School of Medicine. W. B. Saunders Company, Philadelphia, 1955. 1088 pages, 1170 illustrations on 910 figures, 144 in color, $14.00.

PERINATAL MORTALITY IN NEW YORK CITY—Responsible Factors — Schuyler G. Kohl, M.S., M.D., Dr. P.H., Commonwealth Fund, Harvard University Press, Cambridge, Mass., 1955. 112 pages, $2.50.

PRACTICAL MEDICAL MYCOLOGY — Edmund L. Keeney, A.B., M.D., formerly in charge of the Mycology Laboratory and Instructor in Medicine, Johns Hopkins University School of Medicine. Charles C. Thomas, Publisher, Springfield, Illinois, 1955. 145 pages, $4.50.

(Continued on Page 94)

American Medical Association Convention Notes

Atlantic City Discloses American Medical Association Swinging Centerward

The surprising strength displayed by the liberal element of American Medical Association's House of Delegates at its recent convention in Atlantic City could be an omen of interesting things to come. In the spirited floor debate on relations with osteopathy, an unexpectedly large number of House members took the microphone to support a helping hand for a "cult"—an action that would have been unthinkable less than a decade ago. They lost their fight but by a margin so narrow as to clothe the vote with greater significance than its result. A shift of only 11 ballots out of 182 cast would have given American Medical Association sanction to M.D. teaching in osteopathy schools and thereby moved organized medicine—however slightly—toward political center.

It was observed that strongest support for a liaison with osteopathy came from those states in which DO's are most numerous and potential volume of referrals greatest.

Effect on Future Policy

That 101-81 vote does not mean American Medical Association is on verge of capture by liberal bloc. But when one considers, along with narrowness of this defeat, the fact that Atlantic City was third consecutive session of House of Delegates at which it restrained itself from castigating pending national health bills and their sponsors, the feeling gains that A.M.A. is charting a new course in pursuit of its goal to guard and conserve the health of the people.

Drug Dispensing Okayed

In San Francisco a year ago, A.M.A. liberalized its Principles of Ethics to make it easier for physicians to sell drugs without risk of violating code. In Atlantic City recently, there was further relaxation, so that Chapter I, Sec. 8 now reads simply: "It is not unethical for a physician to prescribe or supply drugs, remedies or appliances as long as there is no exploitation of the patient." Note: This is a negatively worded compromise on numerous state plans that were proposed, some of which would have abolished restrictions altogether on dispensing of medicinals by doctors.

Ophthalmologists should be bound by the same principle, with reference to dispensing of eyeglasses, it was held. Regarding their relations with optometrists, a policy was approved whereby they may confer on certain aspects of patient care without compromising the Principles of Ethics. However, American Medical Association branded it unethical for any member to lecture or teach in any optometric school or organization.

(Continued on Page 94)

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Books Received

(Continued from Page 86)

PRIMER OF ELECTROCARDIOGRAPHY, A — **Third Edition, thoroughly revised**—George E. Burch, M.D., Henderson Professor of Medicine, Tulane University School of Medicine; and Travis Winsor, M.D., Assistant Clinical Professor of Medicine, USC School of Medicine. Lea and Febiger, Philadelphia, 1955. 286 pages, 281 illustrations, $5.00.

PSYCHIATRY FOR THE FAMILY PHYSICIAN — C. Knight Aldrich, M.D., Associate Professor of Psychiatry, University of Minnesota Medical School. The Blakiston Division, McGraw-Hill Book Company, 330 West 42nd Street, New York, 1955. 276 pages, $5.75.

PSYCHOCUTANEOUS MEDICINE — Maximilian E. Obermayer, M.D., Clinical Professor and Chairman of the Department of Dermatology, USC School of Medicine, Charles C. Thomas, Publisher, Springfield, Ill., 1955. 487 pages, $9.75.

PSYCHOLOGY IN NURSING—Wendell W. Cruze, Ph.D., Professor of Psychology, Wilson Teachers College. The Blakiston Division, McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, 1955. 494 pages, $5.50.

SURVEY OF CLINICAL PEDIATRICS—**Second Edition**—Lawrence B. Slobody, M.D., Professor of Pediatrics, New York Medical College, The Blakiston Division, McGraw-Hill Book Company, Inc., New York, 1955. 502 pages, $9.50.

TRANSACTIONS OF THE AMERICAN COLLEGE OF CARDIOLOGY—**Volume IV—1954**, Editors, Simon Dack, M.D., and Bruno Kisch, M.D. Published by the American College of Cardiology, 140 West 57th Street, New York 19, N.Y., 1955. 319 pages, $5.00.

American Medical Association Convention Notes

(Continued from Page 86)

House of Delegates postponed action on Truman committee report on fee-splitting and other dubious practices, chiefly because there were not enough printed copies to distribute among members. President-elect Dwight Murray intimated that the number was held down in an effort to prevent "leaks" that might result in unfavorable publicity.

Doctor-Draft Opposed

Unanimous approval was given recommendation of trustees that two-year extension of doctor-draft law be actively opposed. Reference committee's favorable report, which was adopted, was particularly critical of military's utilization of Reserve medical officers—majority of whom are "draftees"—in caring for servicemen's dependents. Note: Representatives of American Medical Association, ADA and other national groups testified before Senate Armed Services Committee against another extension of doctor-draft act.

House of Delegates withheld action on a resolution favoring full military status for Public Health Service personnel, passing this issue on to trustees for study. In past few months, American Public Health Association and Association of State and Territorial Health Officers have gone on record for this change. —*Washington Report on the Medical Sciences*

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Thiamine HCl (B_1)	10 mg.
Sodium Pantothenate	10 mg.
Niacinamide	50 mg.
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Ascorbic Acid (C)	300 mg.
Vitamin B_{12}	15 micrograms
Folic Acid	3 mg.

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New Drug Combination Used for High Blood Pressure

A combination of chlorpromazine, a French-originated drug, plus Rauwolfia, the old "snakeroot remedy" from India, has been used successfully to treat a form of high blood pressure, a New York physician said recently.

Dr. Harold B. Eiber, of the New York Medical College, in a preliminary report said early experience with the combination gave "promising results." The report appeared in a recent issue of the *Journal of the American Medical Association.*

Both of the drugs have been used separately in treating essential hypertension—high blood pressure without known cause. Use of the combination has not been reported previously, Dr. Eiber said.

"The improvement with combined chlorpromazine-Rauwolfia therapy was much greater than with the use of either preparation given alone," Dr. Eiber said.

Of the 75 patients treated with the combination, 95 per cent said they felt better after two or three weeks of treatment.

Chlorpromazine (Thorazine) has been used to treat nausea and vomiting, irradiation sickness, and psychiatric states.

Rauwolfia serpentina, an herb grown in India, inhibits the sympathetic nervous system. It has been used extensively for the treatment of essential hypertension and in certain types of mental illness.

"More than 85 per cent of the patients with mild hypertension showed demonstrable, significant lowering of their blood pressure; more than 70 per cent of the patients with moderate hypertension were benefited, and more than 60 per cent of the patients with severe hypertension were improved," Dr. Eiber said.

Only one patient was unable to tolerate the preparation, because of sleepiness.

"Chlorpromazine when given in larger doses may cause jaundice, which disappears with the withdrawal of the drug; however, no such toxic reaction occurred in this series. The duration of hypotension was approximately six to eight hours; there were no side-effects; the combination is effective when taken orally, and the dosage schedule is simple and uncomplicated," Dr. Eiber concluded.

Nonparalytic Polio Diagnosis Need Not Be Guesswork

"The diagnosis of nonparalytic poliomyelitis no longer has to be guesswork," a Yale University School of Medicine physician said in a recent issue of the *Journal of the American Medical Association.*

She said six months' experience with a relatively new method illustrates its value in diagnosing polio quickly and in winnowing out illnesses which otherwise might be diagnosed as nonparalytic polio.

The new method, a combination of virus-isolation and antibody-response tests, uses monkey kidney tissue instead of live monkeys for testing fluids from patients.

The "tissue culture" method, first introduced by Dr. John Enders, Boston, in 1949, is more rapid, less cumbersome, and less expensive than the use of live monkeys, the author said.

Diagnosis of nonparalytic polio previously depended much on symptoms and epidemic factor studies. Because of the similarity of these factors in several diseases, specific and rapid polio diagnostic tests have been needed. The "tissue culture" method, providing for virus isolation, lessens this confusion.

The "tissue culture" method was carried out on 96 patients at Grace-New Haven Community Hospital, New Haven, Conn., and was reported by Dr. Mary O. Godenne.

The results of antibody response tests were diagnostically significant in 96 per cent of the patients later proved by virus isolation to have polio, the author said.

She said the rapidity of the method "is an encouraging and a relatively new feature of diagnostic work.

"In 60 per cent of the patients from whom a poliomyelitis virus was obtained, the agent isolated from various sources was recognized and typed within seven days of the time of inoculation of the specimen. By two weeks after inoculation these positive results were available in 88 per cent."

Included in the report were patients with paralytic poliomyelitis, meningitis for which no cause could be found, nonparalytic polio, and encephalitis, an inflammation of the brain.

In 49 patients with paralytic poliomyelitis, a polio virus was isolated in 44 or 90 per cent.

Thirteen or 32 per cent of the 41 patients with meningitis and nonparalytic polio harbored a poliomyelitis virus, while three of the six patients with encephalitis had a polio virus.

In discussing the "tissue culture" method, Dr. Godenne said:

"It has demonstrated that the diagnosis of nonparalytic poliomyelitis no longer has to be guesswork. . . . Of the various tests now available, the isolation (and typing) of poliomyelitis viruses from specimens obtained from suspected cases is the most valuable. Furthermore, it is a test in which the results can now be secured in a matter of days."

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"An American Bookshelf" for Overseas

A representative of the U. S. Information Services stopped at my office the other day and promoted what appears to be a good idea to help counteract anti-American propaganda.

The agency, in cooperation with CARE, developed a project whereby a portable library of paperback books which we buy (for $30) can be sent out (through CARE) to a designated library, school, institution, or individual in any of the hostile or neutral or amiable or curious corners of this earth.

The point of it all is to tell the true story of America and Americans to people abroad. And the nub of it is, of course, the kind of books that make up the bookshelf. The books reflect American ideals and culture and the plan is to help win people to the cause of true democracy.

Any physician who wishes to buy the bookshelf for someone abroad can contact CARE, 660 First Avenue, New York 16, N. Y.

My visitor also said that there are still many countries in need of books and journals in the field of medicine for libraries of medical schools and associations. Posts specifically requesting back issues of the *Journal of the American Medical Asso-*

(Continued on Page 18)

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Niacinamide	50 mg.
Riboflavin (B_2)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ascorbic Acid (C)	300 mg.
Vitamin B_{12}	15 micrograms
Folic Acid	3 mg.

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(Continued from Page 14)

ciation are Rio de Janeiro, Managua, Madrid, Bangalore, Taipei, Beirut, and Tegucigalpa. Back files of medical journals and books should be mailed to: The U. S. Book Exchange, 1816 Half Street, S.W., Washington, D. C.

—*A.M.A. Secretary's Letter*

New Manual for Physician's and Dental Assistants

A new, 500-page textbook or training manual, especially helpful to the girl employed in a physician's office, will be published by W. B. Saunders and Company, January 1956.

The book, tentatively entitled "The Office Assistant—in Medical or Dental Practice," is being written by Portia Frederick, Long Beach, Calif., instructor of a two-year course for physicians' aides and laboratory technicians, and Carol Towner of the American Medical Association Public Relations Department.

The illustrated manual will devote equal space to actual medical and dental assisting duties and to

(Continued on Page 34)

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PRO-ACET cleanses the vaginal vault by dispersing mucus and cellular debris with superior wetting action for penetration. Clinically Tested Acid Detergent Douching.[1] Detergents have been shown to have a "toxic action upon the bacterial protoplasm after it has penetrated" the cell.[2]

Available in 6 and 12 oz. bottles.

Write for information about application of Pro-Acet in your examining room.

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DIRECTIONS: To prepare vaginal douche, add one teaspoonful of PRO-ACET Concentrate to each quart of warm water and MIX WELL.
Formula for Pro-Acet Concentrate: Citric Acid, 2.5%; Acetic Acid 4.0%; Lactic Acid 2.0%; Sodium Lauryl Sulfate 3.0%; Dextrose 5.0%; Lactose (beta) 2.5%; Sodium Acetate 2.5%; Methyl Paraben 0.2%; all chemicals U.S.P. in a solution of Distilled Water.

1. Devoe, R. W., & Footer, W., California Medicine, 80:300 (1954).
2. Gershenfeld, Louis, and Milanick, Vera E., "Bactericidal and Bacteriostatic Properties of Surface Tension Depressants," Am. J. Pharm., 113:306.

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Blind Rehabilitation Program Led by Blinded Veteran

Newly blinded veterans and servicemen are learning to walk, work and play again under the leadership of a man just as blind as they.

Serving as a constant example of success and adjustment to the newly blinded men at the VA hospital, Hines, Illinois, is Russell C. Williams, B.S., himself a blinded veteran. He is chief of the blind rehabilitation section at Hines.

Williams and Dr. Maxwell D. Flank, chief of the physical medicine and rehabilitation service at the VA hospital, outline the program of the centralized blind rehabilitation section in a recent issue of the *American Medical Association Journal.*

Assisting Williams are specially trained sighted therapists who work "seven days a week, 24 hours a day" on an individual basis with the patients.

The program participated in by the patients, who come from throughout the United States, is not vocational training but a way of making the emotional and physical change needed for "a fresh launching into society." Underlying all the activities is the aim of showing blinded men that they can adjust and succeed in everyday life.

The activities begin with simple projects and progress to harder ones. This is called establishing a "success pattern."

As patients conquer each new situation, they move to the next, always gaining confidence in their ability to succeed. Each patient progresses at his own rate under the supervision of his own therapist.

In the shop unit, patients begin with leather work, move to weaving, then to the use of hand tools and, finally, to power equipment.

The men are taught to walk with a cane in simple situations in the hospital. The "expected rather than the unusual goal" of this phase is a variety of trips through the congested Loop area of Chicago.

Patients are encouraged but not required to participate in recreational activities, such as swimming, golf, bowling, dancing, and card-playing. They are designed to show the patient that he can participate in group activities with success.

Typewriting, which does not require sight, is taught to all patients along with braille and blind handwriting methods.

Throughout the program, patients and therapists are evaluating, measuring, and analyzing the patient's successes and failures. A clinical psychologist helps the patient in understanding his individual problems—but the emphasis is on the most activity and the least talk.

(Continued on Page 38)

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1. Grayzel, H. G., Heimer, C. B., and Grayzel, R. W.: New York St. J. M. 53:2233, 1953.
2. Heimer, C. B., Grayzel, H. G., and Kramer, B.: Archives of Pediatrics 68:382, 1951.
3. Behrman, H. T., Combes, F. C., Bobroff, A., and Leviticus, R.: Ind. Med. & Surgery 18:512, 1949.
4. Turell, R.: New York St. J. M. 50:2282, 1950.

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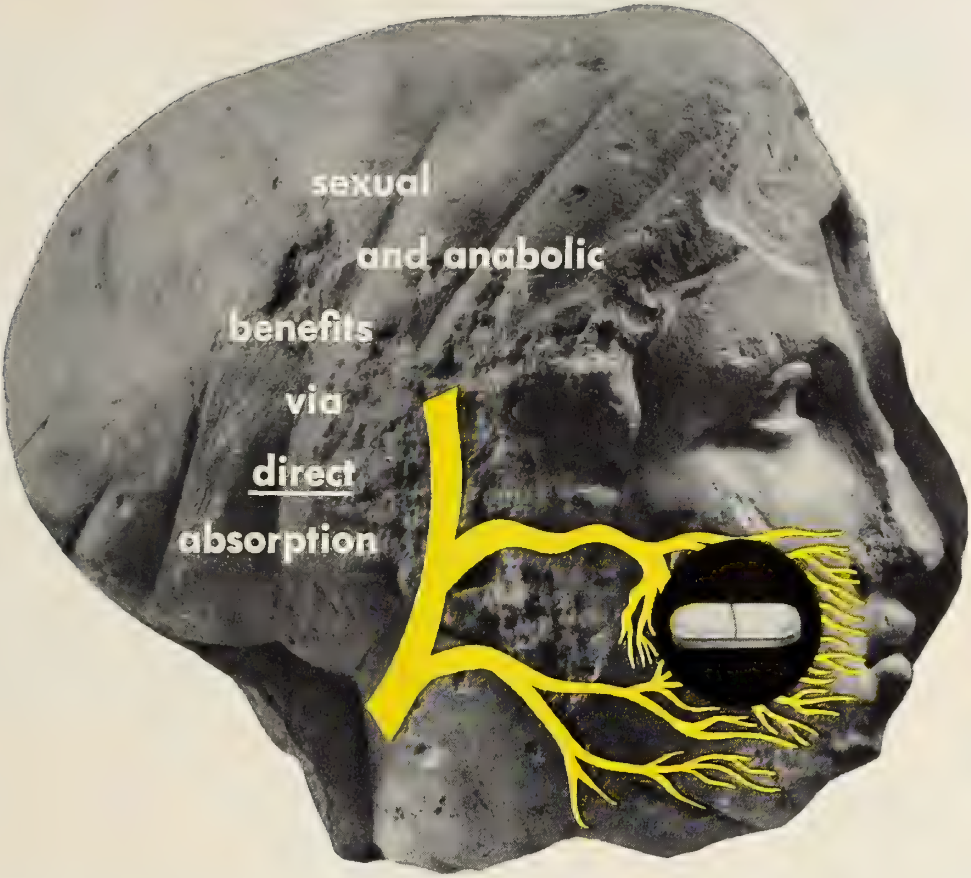

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Adequate Sanitation Can Control Fly Problem

Although fly swatters and DDT may be ineffective in controlling flies, "there isn't the slightest need to permit this public health menace to continue in American cities and towns," according to the health educator of the Los Angeles County Health Department.

Writing in a recent issue of *Today's Health,* published by the American Medical Association, Edward R. Reinig, M.P.H., called for communities and individuals to clean up fly breeding grounds, thus eliminating "one of the greatest disease carriers in history."

Flies have been considered pests since the days of Moses. They have spread typhoid, dysentery, cholera, and other serious maladies.

Methods of combating them have included fly swatters, flypaper, screening, and, finally, during World War II, the insecticide DDT. But in 1947 came the news that flies had "met the challenge" by developing a resistance to DDT and other insecticides.

"Sanitation experts all over the world are now convinced that man's victory over the housefly—if it ever occurs—will likely be achieved through some means not yet put into general practice," the author said.

And that means, according to Reinig, is based on the fly's sex life.

This "helicopter loaded with misery" begins its reproductive cycle by laying eggs in some convenient fermenting matter, such as spilled garbage, compost pile, or manure. Under favorable conditions, the eggs hatch into maggots in 48 hours. Five days later they crawl away and bury themselves in hard cocoons in the ground. Adult flies emerge in about four days, force their way to the surface, and fly off in search of food and shelter.

The way to break up this cycle is to eliminate places where flies lay their eggs, such as open dumps, trash piles, and other rotting vegetable and animal matter.

"Good sanitation is the one weapon against which flies cannot develop resistance," Reinig said.

Controlling flies is essentially an individual responsibility, he said, since "one careless person can be the source of enough flies to plague everybody in the block. . . ." No local or state health department is able to perform the job of community fly control alone.

"One of the best ways to do the job on a community-wide basis is to form a Citizen's Fly Control Committee composed of community residents and public officials. . . . In this way the coordination of all sanitation and fly control efforts is obtained at great saving to taxpayers," the author said.

"The best time for the organization of a fly con-

(Continued on Page 42)

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1. Merlis, S.: DIAMOX: A Carbonic Anhydrase Inhibitor—Its Use in Epilepsy. Neurology. 4:11, 863-866 November 1954.
2. Becker, B.: Decrease in Intraocular Pressure in Man by a Carbonic Anhydrase Inhibitor, DIAMOX. Am. J. Ophth. 37:1, 13-15 January 1954.

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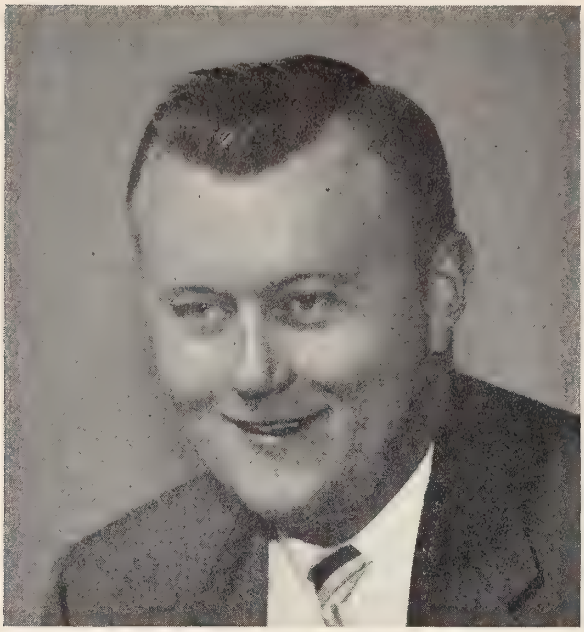

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Maynard tries to keep his calls on a strictly business basis, out of consideration for your schedule. However, he's a very friendly fellow, and if you have time to talk, you'll find him aware of and keenly interested in your problems.

Buying his own home in the quiet, wooded Fairmont Hill section of Salem, Oregon, Maynard plays golf, and is an alumnus of Iowa State and U.C.L.A. In addition to looking after their very active three-year-old, Eric Karl, his lovely wife, Betty Jeane somehow finds time to do fashion modeling, and, 'tis said, both Maynard and Betty play a cool hand of bridge.

Maynard has represented Boyle in southern and coastwise Oregon for the past three years and like our other Boyle & Company V.I.P.'s, he typifies the well-educated, up and coming young business men chosen by Boyle to give you quick, accurate and valuable information on Boyle products.

Don't hesitate to ask your Boyle representative questions or make suggestions about any of the products shown on the opposite page, or about any of the other pharmaceuticals in the Boyle line that may be of interest to you.

BOYLE

Medical Publicity as a Physician Sees It

The powerful impact of medical publicity is seen from a letter which we recently received from Dr. L. H. McDaniel of Tyronza, Ark., chairman of the American Medical Association Section on General Practice.

In his chairman's address at the American Medical Association Atlantic City meeting, Dr. McDaniel walked where doctors usually fear to tread; he predicted tremendous victories for medicine in the next 50 years, including such major goals as eradication of infectious diseases, a cure for the common cold, and surgical transfer of vital organs. All through his address, he hammered at the basic thought that despite continued medical progress there always will be a need for "the physician with an understanding heart."

Dr. McDaniel's talk, like many others, was used as the basis of a news release for newspaper writers. It so happened that, unknown to him at the time of delivery, his remarks were tailor-made for newspaper readers.

And here is what Dr. McDaniel had to say in a letter to American Medical Association headquarters about the flood of publicity which his paper received:

"Little did I think at the time," he said, "that my talk would make the front page of every newspaper in America and in many foreign countries.

"I have received clippings and comments from all over the world—several hundred of them, in fact; some from London, one from Zurich, Switzerland, and one from Hong Kong, China. Arthur Godfrey gave my talk 15 minutes on his TV program; so did Warren Hull and so did Garry Moore. Had many letters from overseas GI's, who heard it on an overseas broadcast. About 2 per cent of my letters are from religious cranks who accuse me of sin in suggestion that man will live beyond the three score and ten. Then another 1 per cent vilify me as a spokesman of 'the cruel medical trust.' Then another 1 per cent have some pet formula or elixir of life and want me to go in partnership with them —they would furnish the brains and I the publicity. About 5 per cent are dubious, but hopeful. The highest percentage of letters was very complimentary not only of me but the medical profession as well.

"Thanks very much for making a front-page celebrity out of a little country doctor."

Dr. McDaniel's reaction, incidentally, is not an isolated example. Many news releases on scientific papers, written and distributed by the American Medical Association, are given similar coverage in newspapers and magazines, and by radio and TV throughout the world.

—A.M.A. Secretary's Letter

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New Manual for Physician's and Dental Assistants

(Continued from Page 18)

business duties. It is being written to meet an increasing need for training material which will equip a girl to handle efficiently both medical assisting and medical secretarial duties in a physician's office. About 65 per cent of the physicians in the United States today employ only one girl; another 23 per cent employ two aides. A physician who hires a nurse often finds her lacking in business skills; if he employs a medical secretary, her shortcomings in the medical-assisting side of her duties are soon apparent. The trend appears to be toward the emergence of a new career for the girl who works for a physician—that of medical secretary-assistant.

The importance of the medical aide in creating good public relations for her physician-employer is stressed throughout the entire volume. Physicians training new aides, medical assistants already working for doctors, teachers of training courses in the medical-dental field, and medical societies carrying on short teaching courses for assistants, will find the book of value.

—A.M.A. Secretary's Letter

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Riboflavin	2.5 mg.	Folic Acid	0.375 mg.
Niacinamide	25 mg.	Vitamin K Menadione	0.5 mg.

ACHROMYCIN SF Oral Suspension: each teaspoonful (5 cc.) contains the same substance as one ACHROMYCIN SF Capsule in one-half the amount.

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Blind Rehabilitation Program Led by Blinded Veteran

(Continued from Page 23)

Length of stay at the hospital varies, depending on the patient's individual responses. Maximum length is usually 18 weeks.

Of the 249 patients treated before December, 1954, 209 were significantly benefited, the authors said. The other 40 remained only a short time.

The section, the only one of its kind in the country, can handle 27 patients at one time.

Doctor Draft Law

The doctor draft remains in effect another two years, until July 1, 1957. In the two major changes from the old act, the new law (1) lowers from 51 to *46* the age limit for callup of physicians, and (2) provides that any physician rejected for a medical commission for solely physical reasons shall no longer be liable on reaching age 35. The $100-a-month special pay for physicians in uniform is continued for four years.

Physicians already in uniform are not eligible for release even though they would not be subject to induction under the amended act. The law became effective June 30; men under travel orders but who had not yet been inducted for active duty at that time will be relieved of obligation at their request. The changes exempt two groups: (a) those who have reached their forty-sixth birthday, and (b) those who have reached their thirty-fifth birthday and at any time have been rejected for a medical commission solely on physical grounds.

—*A.M.A. Washington Letter*

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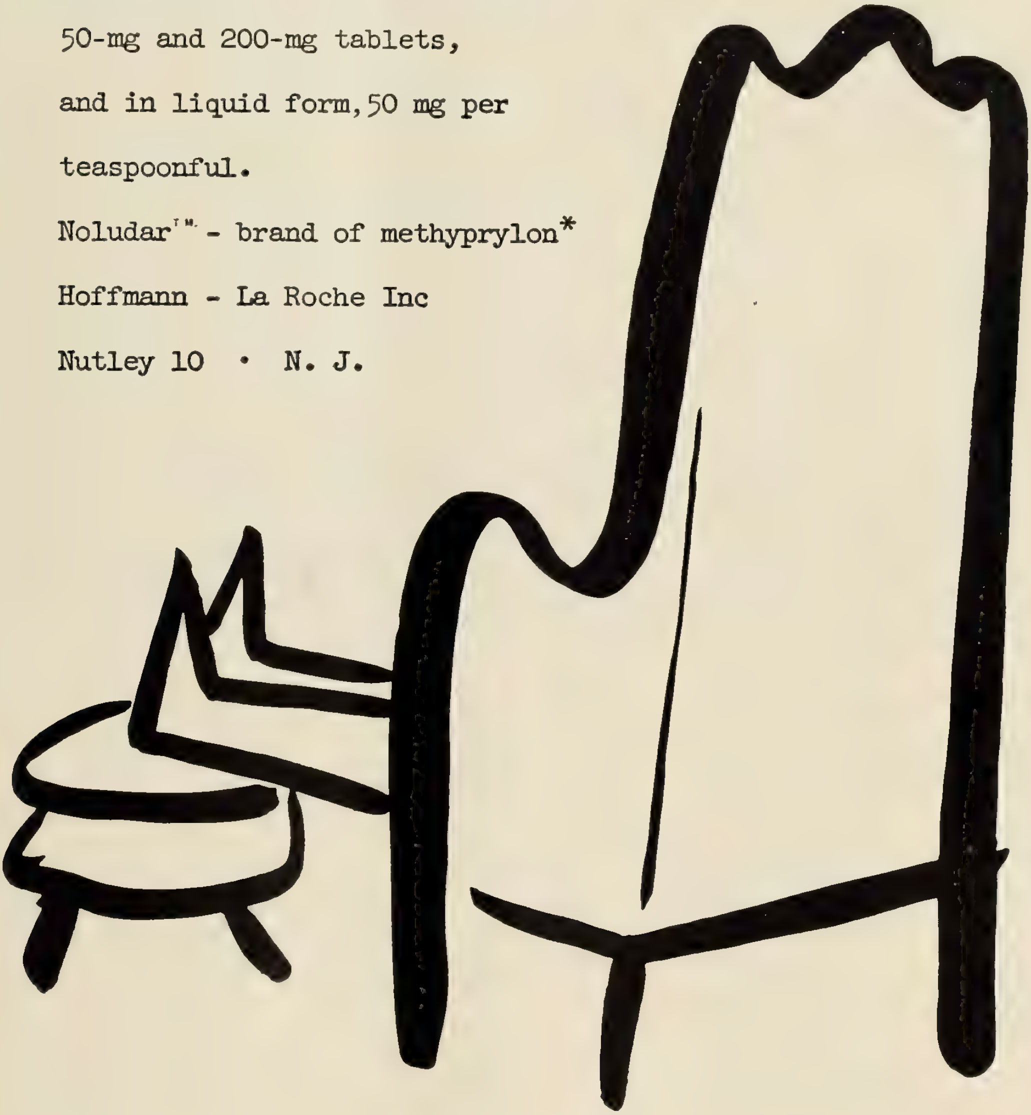

* 3,3-diethyl-5-methyl-2,4-piperidinedione

Adequate Sanitation Can Control Fly Problem

(Continued from Page 28)

trol committee in a community is now," he said. "The fly problem exhibits itself during warm weather, but the work and planning that prevent it is a year-round business. You can win encouraging results this season, and your community will be a jump ahead of the enemy next spring."

"Musts" for an adequate community fly control program include daily garbage collection from restaurants and other food establishments; twice weekly garbage collection in all residential areas; enclosed garbage pickup trucks; landfill type dumps; twice-weekly cleanup and disposal of all waste at poultry houses, hatcheries, slaughter houses, canneries, and similar places.

Others are treatment of private and commercial compost piles with good fumigants, and local ordinances requiring householders and businesses to use nonleaking garbage cans with tight-fitting covers.

If any of these are neglected in a community there probably will be a seasonal fly problem.

Hints for fly control by householders listed by Reinig are:

(Continued on Page 46)

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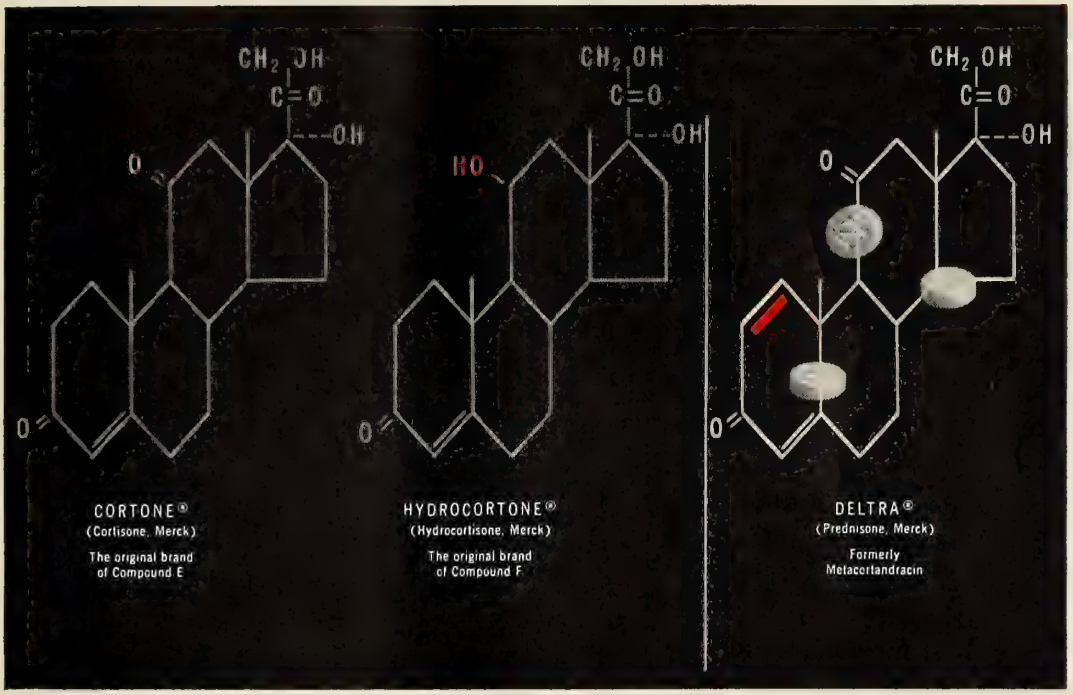

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Adequate Sanitation Can Control Fly Problem

(Continued from Page 42)

"Grass cuttings provide an excellent place for flies to breed. Spread cuttings out thinly for drying. Flies need moisture to breed.

"Manure is an excellent fertilizer for lawns but it should be properly composted and dried before using in this way. Dog droppings should be disposed of by burying or in sewer facilities.

"Clean garbage pails thoroughly after each collection. Make sure covers fit tightly. . . . If bottom of pail is corroded, liquids will seep into the ground, thus providing a good fly-breeding bed.

"If garbage is buried, it should be covered with at least two feet of earth.

"Bury dead animals and cover them with at least three feet of earth.

"Dishwater and kitchen wastes thrown in the yard create breeding grounds for flies.

"Fruit under trees should be raked up and disposed of as garbage."

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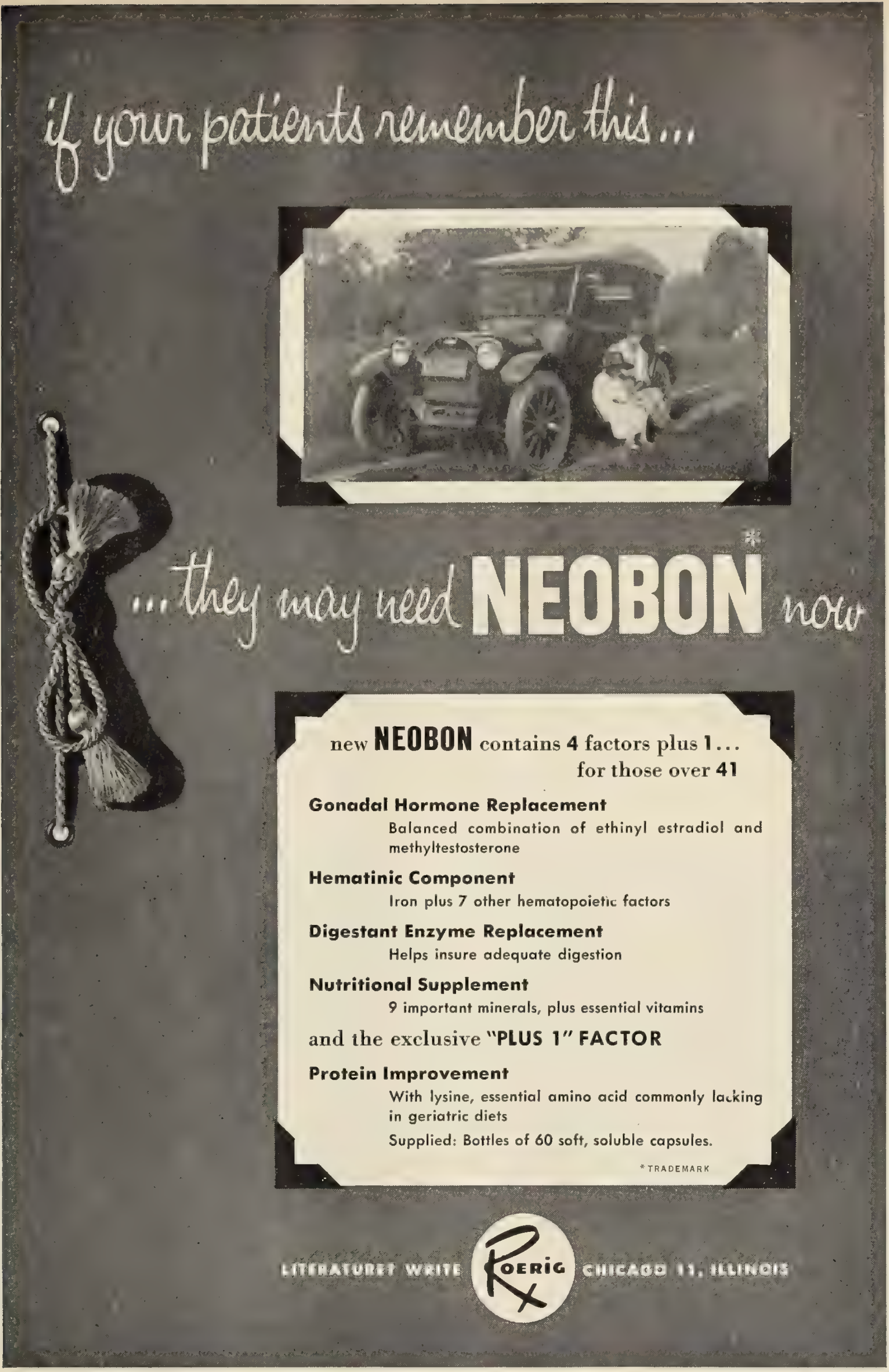
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Inadequate Diet Causes Less Anemia Than Was Expected

Anemia in persons living in a "backward rural area where the diet is notoriously deficient" appears to be less common than was expected, according to a survey reported in a recent issue of the *American Medical Association Journal.*

However, the majority of 90 cases of anemia were caused by iron deficiency and inadequate diet.

The survey was conducted by J. J. Kirschenfeld, M.D., and H. H. Tew, M.S., Fort Deposit, Ala.

Most of the patients were from Lowndes County, Alabama. The basic industry is farming and the important products are cotton, corn, peanuts, cattle and wood.

"The economic status of a large proportion of the population is rather precarious, but improving," the authors said.

"The chief ingredients of the diet, especially in the Negro population, are corn, pork, lard and vegetables such as potatoes, turnips, field peas and collards," they said. "Fruit is rare, and beef, eggs and milk are scarce. . . . To a large extent it is only in the summer months and in the fall that fresh vegetables are available."

Ninety of the 500 patients in the survey showed anemia, a total of 18 per cent. This compares with rates ranging from about 3 to 12 per cent in similar studies conducted in recent years in other areas of the country.

Incidence of anemia was about 10 or 15 per cent in the white patient population and 20 to 25 per cent in the Negro population.

"Anemia was apparently twice as common in the Negro population," the authors concluded.

Inadequate diet caused 22.2 per cent of the cases, while excessive blood loss and pregnancy each caused 22.1 per cent. Other causes were acute and chronic infections and rheumatoid arthritis.

Iron deficiency cases were based on inadequate iron intake, excessive iron loss or iron need due to growth, pregnancy, lactation, menstruation or other loss of blood.

"A large majority of the patients responded well to increased proteins in the diet, the addition of iron, and the correction of any excessive blood loss or infection," the authors said.

Copies of Hippocratic Oath Available

A striking, two-color offset reproduction of the revered Hippocratic Oath is now available from the American Medical Association's Order Department, $1 each, postpaid. Printed on quality Crane parchment stock, the reproduction, measuring 11¾ by 15¼ inches, is suitable for framing.

—A.M.A. Secretary's Letter

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Editorial Tribute to Dwight H. Murray

An editorial appearing in the *California Feature Service*, which was established in 1936 by the public relations firm of Whitaker and Baxter and which goes to more than 300 California newspapers for republication, paid high tribute to Dr. Dwight H. Murray of Napa, California, upon his election as president-elect of the American Medical Association. The editorial featured his background as a "country doctor."

"No one," the editorial said, "personifies more completely the average man's grateful concept of the family doctor, with his warm personal understanding of individual human needs, backed by sound training and unflagging devotion to his fellow men, than California's beloved and self-styled 'country doctor,' Dwight H. Murray of Napa.

"For more than half of his 66 years, Dr. Murray has maintained the rugged regimen of the general practitioner, ministering to all who needed him, keeping pace with the progress of his profession. Now his profession has bestowed upon Dwight H. Murray the highest honor it possesses. . . .

"It is significant, and appropriate, that the medical profession has turned to the ranks of the general practitioners for its next leader. The G.P., the family doctor, the 'country doc'—call him what you may—has not been put to pasture with his faithful old Dobbin. He is the backbone, the heart, the soul of the medical world, and despite the inevitable and necessary development of specialization, will continue to grow in importance. . . ."

—*A.M.A. Secretary's Letter*

Marion B. Folsom, New Secretary of Department of Health, Education and Welfare

Marion B. Folsom, has succeeded Mrs. Oveta Culp Hobby as Secretary of the Department of Health, Education and Welfare on August 1. Mr. Folsom, 61, came to the Eisenhower administration from the Eastman Kodak Co., where as treasurer he was active in setting up that company's retirement system. He has been interested in social security, and played a part in recent changes in the law. In the last Congress he headed a Treasury task force that worked with Congress to revise the internal revenue code.

In a news conference following his nomination, Mr. Folsom said the present social security law "is in pretty good shape," but that it should be extended to take in professional people and more of the self-employed. He also declared that voluntary health insurance should and could be extended without federal help. He said he thought the "big thing" for the future would be in major medical care or catastrophic insurance.

—*A.M.A. Washington Letter*

NEW VERAPENE combines two hypotensive drugs with complementary action: Reserpine simultaneously lowers the blood pressure, slows the heart rate and provides sedation of an exceptional quality, unlike that of barbiturates in that it does not induce sleep. Protoveratrines A and B produce a more potent hypotensive action, with significant decrease in the systolic and diastolic pressures of most patients. Together, these carefully chosen alkaloids provide the physician with a flexible, effective agent for management of moderate and severe hypertension.

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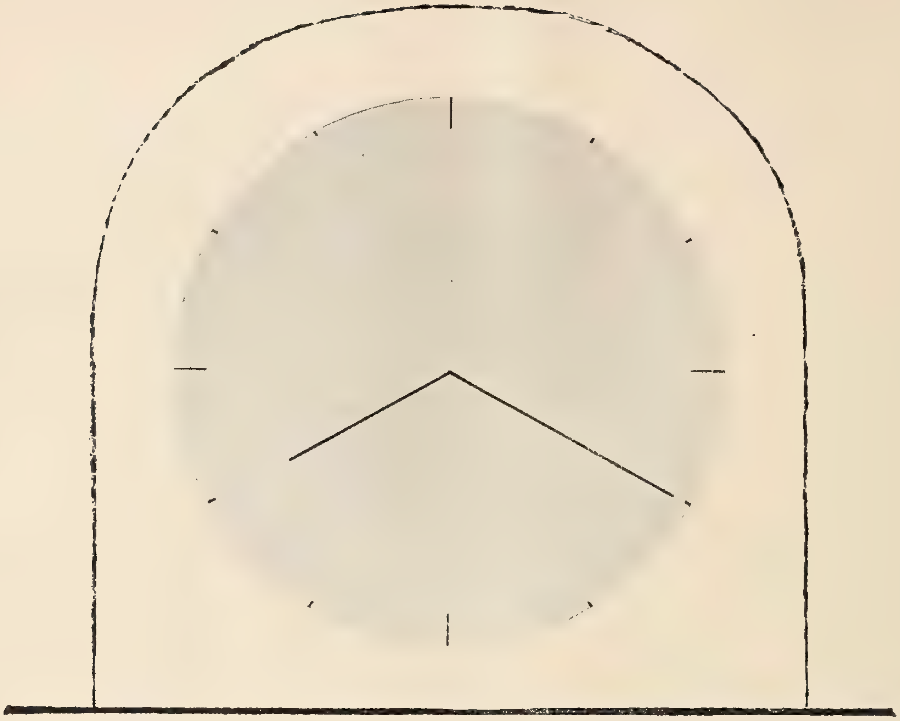

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Green, M.A.: Ann. Allergy *12*:273

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Nonallergic Asthma

Differential Diagnosis and Treatment

SAMUEL H. HURWITZ, M.D., San Francisco

• *A classification of asthma into allergic and nonallergic has gained support from the more recent studies on the underlying causes of the disease.*

The majority of instances of nonallergic asthma occur after middle life and result from recurrent infections of the upper and lower respiratory tract. Status asthmaticus is a frequent complication of infectious asthma.

Chronic and intractable asthma may be present also in a patient with allergic asthma complicated by a superimposed infection of the sinuses, bronchi and lungs.

There are many secondary or precipitating causes that may bring on asthmatic paroxysms. The most important of these are acute respiratory infections, mechanical and chemical irritants, autonomic imbalance, hormonal deficiencies and psychogenic influences. These secondary causes play a more important role in nonallergic asthma because of the greater tendency to chronicity in this form of the disease.

The effective treatment of chronic asthma depends largely on the successful control of the secondary or precipitating causes of the asthmatic attacks.

The introduction of the antibiotics and corticosteroids in the treatment of infectious asthma has supplied potent weapons to combat the disease. The use of these therapeutic agents makes possible the control of two of the important pathologic lesions of asthma—bronchial infection and bronchial inflammation.

At present combined antibiotic and cortisone or hydrocortisone therapy of asthma seems to be the most rational method of preventing the disease from becoming chronic and intractable. Their value in infectious asthma is due to their anti-infective and antiflammatory action.

When prolonged treatment is essential, combined therapy also lessens the dangers arising from the presence of masked infections.

In 1860, Henry Hyde Salter, an English clinician, published a classic monograph, "Asthma: Its Pathology and Treatment."[14] This monograph was the first to present the fundamental pathologic and clinical observations on asthma. Salter, himself a sufferer from chronic asthma, had an excellent opportunity to study the clinical history of the disease and in particular the reflex phenomena which he believed played an important role in the attacks.

It is of historical interest that although written in the preallergic era, Salter's monograph mentions

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Presented before the Section on Allergy at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

TABLE 1.—*Salter's classification of asthma*

Asthma	Idiopathic, uncomplicated, or Spasmodic asthma	1. Exciting cause manifest.	Intrinsic asthma i.e., irritant applied to the lungs themselves.	I. Asthma from fog, smoke, fumes of various kinds.
				II. Ipecacuan asthma.
				III. Hay Asthma.
				IV. Asthma from animal emanations.
				V. Asthma from certain airs.
				VI. Toxhaemic asthma.
			Excitomotory, or reflex asthma.	I. Peptic asthma.
				II. Asthma from organic nervous irritation.
				III. Asthma from peripheral cerebrospinal irritation.
			Central asthma	Epileptic, Emotional, etc.
		2. No apparent exciting cause of attacks		Periodic Asthma
	Symptomatic, complicated or Organic asthma	Organic cause Vascular.	I. Asthma complicating bronchitis, common humid asthma—senile asthma.	
			II. Cardiac asthma.	
		Organic cause Nervous	Heberden's case, etc.	

instances of "hay asthma," "asthma from animal emanations," and asthmatic attacks brought on by the inhalation of ipecac powder. The latter occurred among pharmacists and medical students who inhaled the drug while dispensing prescriptions.

Salter was probably the first to use the term *intrinsic* in the classification of the causes of asthma. Since then this term has gained wide usage and the extrinsic-intrinsic grouping of asthmatic patients is now deeply rooted in the nomenclature. The designation of asthma as intrinsic has led to much confusion because it has been given different interpretations by different clinical observers. The term *intrinsic* as employed by Salter had reference to patients whose symptoms were the result of irritation of the lungs by the common inhalants and other irritants. According to Rackemann,[13] Alexander,[1] and other proponents of the extrinsic-intrinsic classification, the designation *extrinsic* covers those asthmatic patients whose symptoms are due to sensitization to inhalants, foods and drugs; whereas *intrinsic* has reference to persons with asthma that is not due to sensitivity and to those whose symptoms arise from many unrelated causes.

Swineford,[15] among others, has presented cogent reasons for discontinuing the extrinsic-intrinsic classification of the causes of asthma. A classification of patients into allergic and nonallergic would be less confusing and more in keeping with present-day knowledge of the underlying causes of the disease.

The concept of nonallergic asthma as a syndrome in which wheezing is the diagnostic feature is not supported by the pathologic findings. Chronic asthma is a disease characterized clinically by wheezing respiration and dyspnea, physiologically by bronchospasm and pathologically by edema and hypersecretion of the bronchial mucous membrane. In some instances thickening of the walls of the bronchi is also present.

The extensive research which followed the von Pirquet era, a half century ago, laid the groundwork for the present knowledge of allergic phenomena and made possible a better understanding of the causes of allergic asthma. The great emphasis focused on the study of allergic asthma has, however, diverted attention from the large group of patients whose asthma comes on after middle life and in whom chronicity is a common clinical feature.

Success or failure in the management of the patients with chronic asthma of the nonallergic type depends largely on our ability to control the secondary or precipitating causes of the attacks. Before discussing the present-day procedures employed in the direct therapeutic attack on the primary causes of asthma, it is important to consider the significance of the secondary or precipitating causes.

Climate. Many exciting or precipitating causes of asthmatic paroxysms are recorded in the literature. Climatic influences (temperature, relative humidity, barometric pressure) have been stressed by students of the disease[12] since Salter's original observations. There is little doubt that asthma of the nonallergenic or infectious type usually occurring past middle life is benefited by a warm, dry climate. However, in the case of a patient with allergic asthma and superimposed infection, particularly in the case of pollen-sensitive patients, the physician must first be assured that the region is

TABLE 2.—*Causes of asthma*

PRIMARY	← SECONDARY (Precipitating) →	PRIMARY
I. Infection (bacterial, virus) (nonimmunologic) II. Allergy plus infection (combined immunologic and nonimmunologic)	1. Acute respiratory infections 2. Climate (temperature, relative humidity, barometric pressure) 3. Physical agents (light, heat, cold) 4. Chemical irritants 5. Mechanical irritants 6. Glandular dysfunction (thyroxine, estrogen, androgen, adrenocortical steroids) 7. Autonomic imbalance 8. Psychogenic	III. Allergy (immunologic)
CONDITIONS FREQUENTLY PRESENT IN INFECTIOUS ASTHMA		CONDITIONS FREQUENTLY PRESENT IN ALLERGIC ASTHMA
1. Suppurative sinus disease		1. Hyperplastic sinus disease (polyposis)
2. Chronic bronchitis		2. Allergic cough
3. Emphysema (true)		3. Allergic bronchitis
4. Bronchiectasis		4. Emphysema (functional)
5. Obstructive bronchitis		5. Urticaria
6. Bronchial stenosis		5. Eczema
7. Chronic lung disease		7. Gastrointestinal allergy

free of the inhalants to which the patient is sensitive. The physician who advises a change of climate assumes considerable responsibility and the patient who at great mental or financial hazard seeks relief through a change of climate and is not benefited thereby, may return with the psychic setback which results from failure. Better and more lasting improvement is usually obtained by environmental control, with attention to heating of the home, proper ventilation and the removal of irritating substances from the patient's home surroundings.

Autonomic, Hormonal and Psychogenic Factors. These influences play a secondary, although significant, role in initiating and prolonging attacks of nonallergic asthma. It has already been stressed that the same factors are also excitants in allergic asthmatic patients but because of the pronounced tendency to chronicity in nonallergic asthma they assume considerably more importance. The autonomic nervous system is the great regulating and coordinating mechanism of the body. As is well known, reflex stimulation of the vagus and sympathetic nerves plays a very important part in the contraction and relaxation of the smooth muscle of the bronchi. Relief of an asthmatic paroxysm by relaxation of the smooth muscle of the bronchi through epinephrine stimulation of the sympathetic terminals is one of the most effective therapeutic measures. Little is as yet known, however, of the action of other endocrine secretions — thyroxin, estrogen, androgen, pituitary and adrenal steroids—on the sympathetic-parasympathetic mechanism in its relation to asthma. Further studies on the role of the pituitary and adrenal cortex in relation to the ketosteroid excretion may throw additional light on the asthma problem.

The revival of interest in psychosomatic medicine in recent years has placed more emphasis on the psychogenic factor in asthma. One need not stress the importance of psychodynamic influences on body function. These influences are well recognized in many chronic diseases such as those affecting the gastrointestinal, circulatory, urinary and respiratory systems. Although there is no evidence that psychic factors alone without allergy or infection can cause asthma, they may be among the most potent factors in precipitating a paroxysm or modifying the disease to the extent that the asthmatic state becomes chronic and intractable. The beneficial therapeutic effects that an adjustment to life situations has on an asthmatic patient, and the relief obtained after the correction of anxiety states, are so often observed that they cannot be overlooked. A rational viewpoint is to regard the role of the psyche in asthma somewhat between the view of those who maintain that asthma is psychogenic and the view of the skeptic who is of the opinion that psychic influences are of little or no importance.

DIFFERENTIAL DIAGNOSIS

A clinical diagnosis of asthma is easily made in the presence of wheezing respiration, particularly if wheezing is accompanied by dyspnea. Determination of the cause of the asthma, however, requires a more intensive search, and a thorough history is of the greatest value. History alone will frequently

TABLE 3.—*Differential diagnosis of nonallergic and allergic asthma*

HISTORY	
NONALLERGIC	ALLERGIC
1. No family history of allergy. Attacks of asthma not related to inherited predisposition.	1. Positive family history of allergy. Attacks of asthma related to inherited predisposition.
2. History of other allergic manifestations unusual.	2. History of other allergic manifestations usually elicited.
3. Occurrence of asthma more common after middle life.	3. Asthma usually occurs before middle life.
4. Attacks usually ushered in by cold or bronchitis at a time of year when bronchial infections are common.	4. Attacks come out of clear sky. Occur at a time when persons with whom patient has contact are unaffected.
5. Attacks of asthma usually single.	5. Attacks usually recurrent.
6. Each attack usually clears up without residual symptoms.	6. Mild symptoms often persist between attacks.
7. No relation of asthma to inhaled substances or foods.	7. Inhaled substances or foods are frequently found to be causes of asthma.
8. No itching of mucous membranes.	8. Itching of conjunctival, nasal and pharyngeal membranes.
9. Status asthmaticus.	9. Constitutional reactions.

TABLE 4.—*Differential diagnosis of nonallergic and allergic asthma*

EXAMINATION	
NONALLERGIC	ALLERGIC
1. Visible mucous membranes hyperemic, red.	1. Visible mucous membranes pale, glistening, edematous.
2. Mucopurulent nasal discharge and sputum.	2. Thin watery mucoid nasal discharge, mucoid sputum.
3. Smear of nasal or bronchial secretion usually shows predominance of polymorphonuclear leukocytes.	3. Smear of nasal or bronchial secretion shows predominance of eosinophils.
4. Sinus involvement, if present, is of purulent type.	4. Sinus involvement, if present, is of hyperplastic type (nasal polyps).
5. Roentgenograms of lungs usually show peribronchial thickening and in chronic asthma x-ray evidence of emphysema.	5. Roentgenograms of lungs usually show slight or no bronchial markings.
6. Skin tests usually negative.	6. Skin tests usually positive.
7. No urticaria, eczema or other allergic manifestations.	7. Urticaria, eczema, or other allergic manifestations often present.

lead to a correct diagnosis of the underlying cause or causes. When the information obtained from the history and physical examination of the patient with suspected nonallergic asthma is inadequate for diagnosis, more extensive examinations are necessary. These may include clinical laboratory studies of the sputum for bacterial flora, tests to determine whether eosinophilia is present, and routine sensitivity tests on the skin to rule out possible allergic asthma with superimposed secondary infection of the sinuses and bronchi.

A routine rhinological examination should be done to determine the appearance of the nasal and pharyngeal membranes. Pallor and swelling of the nasal and pharyngeal membranes and a translucent uvula are characteristic of uncomplicated allergic asthma. However, this classic appearance may be masked by secondary infection. In the case of asthma due to both allergy and infection, a rhinologic examination will disclose the existence of suppurative or hyperplastic sinus disease. The recurrent polyposis in the latter condition may lead to narrowing of the bronchi through the nasal-pulmonary reflex, a mechanism which needs further study.[4]

Roentgenograms of the lungs in infectious asthma usually show peribronchial thickening and, in persons with chronic asthma, evidence of emphysema. Visualization of the bronchial tree, which can be done with a little more discomfort to the patient and only slightly more expense, will yield vastly more information. Bronchograms may show the presence of bronchiectasis and narrowing of the bronchi and mediastinal and peribronchial masses from other causes—foreign bodies, polyps and kinks from contracting scars.

Because of the chronicity of nonallergic asthma, the question of a cardiac component must be considered. Although chronic asthma and heart disease may occur together, so-called cardiac asthma usually occurs in patients with a known history of heart disease which has imposed a load on the left ventricle. If the bronchi respond to the pulmonary congestion by spasm or if the lumina of the bronchi are narrowed by edema of the bronchial mucosa, asthmatic wheezing rales may be present. In that event, asthma of long standing may be associated with chronic emphysema and enlargement of the right side of the heart, resulting in cor pulmonale. One should, therefore, rule out the cardiac factor by clinical observation, physical examination, electrocardiogram and x-ray studies.

TABLE 5.—*Diagnostic procedure in nonallergic asthma*

1. History
2. Physical examination
3. Skin tests
4. Rhinoscopic
5. Roentgenograms of lungs
6. Bronchogram
7. Bronchoscopy
8. Electrocardiogram
9. Laboratory
   - Sputum—Routine culture
     - Sensitivity tests for antibiotics
   - Nasal smear
   - Blood count (eosinophilia)
10. Pulmonary function
    - Timed vital capacity
    - Maximum breathing capacity

TREATMENT

There are few chronic illnesses which present such a therapeutic challenge to the physician as does chronic asthma. Effective treatment, particularly of patients in status asthmaticus has been greatly aided by the advances in knowledge of antibiotics and adrenocortical steroids. These, however, should not lessen the interest in general and preventive measures. Patients with chronic asthma of the infectious type require careful supervision. Proper nutrition is essential and except in instances of allergic asthma complicated by secondary respiratory tract infection in which sensitization to foods is unmistakably present, rigid restrictions in diet may be harmful to an already debilitated patient. Vitamin supplements and the correction of any existing anemia are important. Instructions to patients with chronic asthma should include instruction as to dietary habits and environmental control, the early treatment of acute respiratory infections, and avoidance of fatigue, emotional stress and undue physical effort.

Drugs play an important role in the treatment of asthma. The value of epinephrine, ephedrine, aminophyllin and antihistamines is too well known to require more than mention. It is unfortunate that their introduction in the treatment of asthma has lessened interest in the iodides. The iodides are particularly helpful in the treatment of chronic infectious asthma where the tenacious sputum is an important problem. Iodides may lessen the tendency to exhausting cough, so prevalent in infectious asthma, by keeping the sputum more fluid. In Hyde Salter's day, the iodides were hailed as the most important drugs in the treatment of chronic asthma and Salter devoted many pages of his monograph to stress their value.

Antibiotics. The introduction of antibiotic therapy in the control of respiratory tract infections and of infectious asthma has made possible a fundamental attack on the causative bacteria. Prolonged or long-term treatment with antibiotics is more effective not only in preventing early relapses, but also in controlling chronic infectious asthma. In these instances, choosing the appropriate antibiotic and the method of administration is very important.[6]

Cultures and sensitivity tests should be made promptly. Material for sensitivity tests may be obtained from the infected sinuses, which are among the commonest causes of acute infectious asthma, or from a specimen of deep sputum. Where bronchoscopy is indicated, as in the event of complicating bronchiectasis, mucous plugs removed in the process may be cultured and tested. Until the results of sensitivity tests are known, the selection of an antibiotic is of necessity empirical. In these circumstances a broad spectrum antibiotic may be used.

Of utmost importance is the immediate and effective control of acute upper and lower respiratory tract infections in the early stages. If the results of sensitivity tests are not available, the oral administration of broad spectrum antibiotics which attack both Gram-positive and Gram-negative organisms will frequently give better results. Oral antibiotic therapy should be continued for at least five or ten days until the secretions from the sinuses and the sputum have become less purulent. This will prevent the transition from an acute to a chronic respiratory infection resulting in infectious asthma. Inadequate dosage may give temporary relief but will not spare the patient the discomfort of asthma lasting weeks or months. Early, adequate antibiotic therapy, therefore, becomes one of the most valuable measures in preventing an acute infection of the sinuses, bronchi or lungs from bringing on recurrent asthmatic paroxysms.

In the control of chronic infectious asthma, prolonged antibiotic therapy may be carried out over a period of months or several years. When so used, the antibiotic must be carefully selected. Sensitivity tests must be the guide, even though not infallible, because of the changing bacterial flora which may follow antibiotic therapy.

In status asthmaticus, where time is of the essence, an injectable antibiotic should be used. Penicillin is the one most widely given despite the well known anaphylactic reactions. This hazard may be lessened by combining penicillin in the same syringe with an injectable antihistaminic drug.

Aerosols have been highly recommended as an effective method for long-term treatment of chronic infectious asthma. This method of antibiotic therapy has some advantages. It is comparatively safe, free from side reactions, except for oral and pharyngeal irritation, and permits of self-administration by simple and economical techniques. It is questionable, however, whether the blood levels of the antibiotics obtained by aerosolization are sufficient to be of value except in the less severe forms of infectious asthma.

Steroid Hormones. The profound effect produced by the corticosteroids on metabolism and especially on the balance of the electrolytes has been the subject of intensive research ever since their importance in therapy became known. The role of these hormones in infections is thus far little understood. It has been suggested that they lessen the inflammatory reaction and thereby the tendency to localization of the infection. Their anti-infective action may be due not to their inhibition of bacterial growth, but rather to the protection which they give the cells of the host against the liberated bacterial toxins.[9] Regardless of the lack of a satisfactory explanation of the mode of action, the value of the steroid hormones in infectious asthma is now well established.[3, 8] When properly used they are one of the most important additions to the therapy of status asthmaticus.

Where prolonged treatment with cortisone or hydrocortisone is used, the well known safeguards against untoward reactions must always be carried out. The proper selection of patients and the maintenance of dosage at the lowest level necessary to keep the patient symptom-free are essential for the safe employment of these hormones. Atrophy of the adrenal cortex may follow long-term therapy with these steroids. This can be in part overcome by the simultaneous injection of ACTH gel during the period of prolonged oral or intramuscular use of the hormones.

When the asthmatic attacks become resistant to all the well known methods of treatment and result in status asthmaticus, hydrocortisone or corticotropin may be given by slow intravenous infusion. This method of therapy has the advantage of bringing the hormones in quick contact with the tissues and cells of the host. Intravenous infusion in critically ill patients with status asthmaticus should be accompanied by intramuscular injections of cortisone or hydrocortisone until the emergency has been met. The presence of other infections is no contraindication to the unrestricted use of these steroids in chronic intractable asthma, particularly when combined with antibiotics. The latter will lessen the hazard of other masked infections which may be present. Combined treatment with adrenocortical hormones and antibiotics has been shown to be more effective than therapy with either steroids or antibacterial drugs alone.[7]

Physiotherapy. The importance of physical methods of improving respiration was stressed by the Asthma Research Council of London more than 20 years ago.[10] It is well known that in normal breathing the respiratory muscles alter the configuration of the thorax so that on inspiration air inflates the lungs. This air is expelled by the elastic recoil of the lungs with each expiration. During an asthmatic paroxysm, inspiration becomes easier than expiration. The accessory muscles of respiration are able to overcome the obstruction caused by the generalized spasm of the smooth muscle of the bronchioles and the edema of the mucous membranes of the bronchi. Because of this obstruction in the bronchi, frequently aggravated by the development of mucous plugs, the lungs become overdistended. The degree of emphysema which develops and its reversibility or irreversibility depends largely on the chronicity of the asthmatic condition. In the less severe and less chronic forms of asthma, an asthmatic paroxysm causes only temporary overdistention of the lungs, which return to normal after the attack.

TABLE 6.—*Treatment of nonallergic asthma*

1. GENERAL AND PREVENTIVE MANAGEMENT
    Rest
    Diet
    Nutrition
    Correction of anemia and hormonal dysfunction (thyroid, estrogen, androgen)
    Removal of focal infection (teeth, paranasal sinuses)
    Early effective treatment of acute respiratory tract infections
2. ENVIRONMENTAL CONTROL AND DESENSITIZATION IN COMBINED FORMS (allergy plus infection)
3. DRUGS
    Iodides
    Adrenalin
    Ephedrine
    Aminophyllin
    Antihistamines
4. ANTIBIOTICS
5. ADRENOCORTICAL STEROIDS AND CORTICOTROPIN
6. COMBINED ANTIBIOTIC AND ADRENOCORTICAL STEROID THERAPY
7. PHYSIOTHERAPY (breathing exercises)
8. PSYCHOTHERAPY

The resulting emphysema is not associated with irreversible changes in the thorax and lungs and may be designated as functional emphysema. If such attacks are of long duration and occur over a period of years, the chest adapts itself to the overdistended lungs and assumes a barrel shape with widening of the costal angles and a secondary enlargement of the lungs. True emphysema of this type is not an unusual finding in chronic asthma.

The primary object of breathing exercises in asthma is to restore the lungs and chest cavity to normal size. Such exercises will often improve the excursion of the lower ribs and diaphragm and restore the lungs and thorax to a comparatively normal state. Exercises designed to encourage diaphragmatic breathing are useful in functional emphysema associated with the less intractable forms of chronic infectious asthma. Abbreviated abdominal breathing has been suggested also as a prophylactic measure in bringing a beginning asthmatic paroxysm under control.[2, 5] Thus far, the method of evaluating improvement in pulmonary ventilation which may result from breathing exercises has been limited to hemithorax measurements. A more exact method of measuring the degree of bronchial obstruction as it affects the ventilation capacity in a chronic asthmatic patient both at rest and following exercise will no doubt be developed. The intensive studies on pulmonary function[16] now being carried out in many hospital laboratories in the United States should yield very valuable information on the effectiveness of physical exercises in chronic asthma.

Psychotherapy. The psychotherapeutic management of a patient with chronic intractable asthma differs only in minor details from that employed in the psychotherapy of any chronic disease. In an asthmatic child, whether the condition be due to allergic causes or is an aftermath of infectious disease—bronchitis, pneumonia, whooping cough or measles—the emotional pattern may be shaped to a great extent by family environment. In recent years greater emphasis has been placed upon maternal influences. This, however, is not true of patients past middle life in whom chronic intractable asthma develops as a result of infection. In this older group of patients, the pattern of behavior usually has been well established before the onset of the distressing symptoms which characterize recurrent asthmatic paroxysms. An anxious, depressed, dependent and phobic person will naturally have a more violent emotional response to such attacks than one who, when in good health, has shown emotional stability and normal adjustments to life situations.

Every understanding physician uses psychotherapy in the care of patients. Much of what he may do is inherent in the doctor-patient relationship. To be successful in the management of the emotional problems of patients with chronic asthma, the physician must take the time to advise, suggest and reassure.

In the majority of instances the physician who treats the organic causes underlying a patient's asthmatic condition is in the best position to minister to the patient's psychotherapeutic needs. However, where the situation demands the more specialized techniques, he should refer the patient to a cooperative psychiatrist. The psychiatrist is qualified by training to know the significance of the psychologic stresses which may give rise to such emotional responses as anxiety, fear, resentment, hostility, frustration, rivalry and guilt. The fruitful results achieved by the cooperation of a rhinologist when the asthma problem is complicated by sinus disease should encourage similar cooperation on the part of the psychiatrist when the correction of a fundamental psychogenic component is essential for a successful result.

Centuries ago Socrates[11] with his profound insight must have had in mind the psychosomatic approach to the treatment of disease when he admonished: "Let no one persuade you to cure him until he has given you his soul to be cured, for this is the great error of our day in the treatment of the human body, that physicians separate the soul from the body."

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Neurosurgery in General Practice

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• *The advances in the field of neurological surgery permit satisfactory treatment of problems heretofore looked upon as nonremediable. Visible abnormalities of the head should be analyzed carefully for neurological implications and possibilities of correction. The relief of pain by specific pain pathway interruption can be both gratifying and merciful, and if it is to be carried out, should not be withheld until the terminal stages of disease. Common symptoms such as epilepsy and subarachnoid hemorrhage deserve full scale investigation with an eye to elucidation of the causative factors and proper therapy.*

RAPID MEDICAL PROGRESS often outstrips the cognizance of physicians busy in the urgent affairs of practice and an occasional review of certain aspects of specialized fields of interest can be of value. Surgery of the nervous system and of its bony coverings has advanced in both diagnosis and treatment to such an extent that some diseases previously considered unamenable to surgical correction may now be successfully controlled or rendered less severe if attended early. Present concepts in the surgical management of certain common as well as rare problems will be considered here.

CONGENITAL AND DEVELOPMENTAL DEFECTS

Hydrocephalus. Abnormal growth of an infant's head is readily visible and measurable in a semiquantitative way and will attract the attention of the parents as well as of the physician. Two of the common mechanisms causing this growth are pathologic collections of fluid in the extra-arachnoid subdural spaces and obstruction to the free passage of cerebrospinal fluid.

All babies with abnormally increasing head size should be studied in a hospital where the subdural space can be examined as one of the first procedures in elucidating the mechanism of the increase. Subdural collections of fluid with a high protein content may be the result of bleeding into this space, although the causes of the bleeding are not always understood and the importance of trauma is not as evident as in the cases of adult patients with similar collections. Collections also may follow purulent meningitides, and again the pathogenesis would need elucidation, but the treatment is clear. It is to be remembered, however, that the increase in head size may only be slight, and that it is not an inevitable accompaniment of these diseases. Abnormal subdural fluid collection requires prompt treatment in the form of repeated evacuation and complete excision of the offending fluid-filled envelope. Failure to administer prompt treatment leads to irreparable brain damage in a critical phase of brain growth. These processes are progressive and potentially lethal.

"Internal" hydrocephalus results from an obstructive process in the pathway of cerebrospinal fluid passage. Although the cerebrospinal fluid is probably not exclusively formed in the ventricles of the brain but throughout the neuraxis, nevertheless, blockage of passage of the fluid within the ventricles as well as in the extraventricular channels will lead to a dilatation of the ventricular system (initially at the expense of the white matter) and will produce, if unrelieved, a severe thinning of the cerebral mantle and eventual death. The hitherto uniformly pessimistic outlook in such cases is not altogether justified, for surgical amelioration is possible in some cases of hydrocephalus that develop after birth. Certainly all such cases deserve study. Infantile hydrocephalus is often associated with some degree of spinal dysraphism, lumbosacral meningomyelocele being the most common form. The cause of hydrocephalus in such infants can frequently be explained by a developmental defect of the hindbrain—the Arnold-Chiari malformation. The hydrocephalus that sometimes develops after the successful repair of a mild form of dysraphism may occasionally be relieved by a decompression of this hindbrain deformity. Infantile hydrocephalus that is not associated with spinal or cranial dysraphism is caused by internal blockage of the ventricular system. Such blockage, commonly in the aqueduct of Sylvius, is usually caused by defects in the formation of the aqueduct, although examples of neoplasia do occur uncommonly. Babies with this obstructive internal hydrocephalus may be considered for successful by-passing or shunt procedures whereby the blockage of the aqueduct is overcome by the construction of an artificial channel.

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Submitted January 26, 1955.

Infantile hydrocephalus is also caused by poorly understood defects in fluid exchange, both formation and absorption. The cerebrospinal fluid may "circulate" freely within and outside the ventricles, but an excess rapidly accumulates, and if not continuously removed it causes serious degrees of head growth and brain destruction. In about 60 per cent of the cases of hydrocephalus with internal obstruction as well as those in which free flow of fluid can be demonstrated in all passageways, surgical measures may successfully transport the cerebrospinal fluid into ureter, peritoneum or other serous-lined absorbing cavities. Newer methods of returning this fluid to the vascular system are undergoing trial.

The parents ought not be encouraged to hope too much unless careful study of the infant establishes, first, that the type of hydrocephalus is amenable to surgical attempts and, second, that the baby has some reasonable prospect of normal maturation. A surgical exercise which prolongs a recognizably and hopelessly defective life is ill-advised. The process of ventricular enlargement can progress at great speed, destroying in a matter of weeks the only chance of salvage. Therefore, early evaluation is mandatory if this condition is suspected.

Cranial Synostosis. Like hydrocephalus this deformity is visible in the developing contour of the infant's cranium. The cranial sutures fuse prior to the completion of normal brain growth, and the pattern of deformity is determined by the location of the suture or sutures which are prematurely closed. Varying combinations of suture closure may give bizarre shapes to the baby's head. Associated congenital stigmata may accompany the defect in cranial bone relationships, including syndactylism, cleft palate and facial bone deformity. If the progressive cranial deformity is remedied in time, the prognosis for brain development is usually good. This condition, improperly confused with microcephaly, can be treated surgically with gratifying results. Artificial sutures are constructed to replace those prematurely closed, thus permitting once again normal expansion of the bones of the skull as brain growth continues.

It will become increasingly clear why early correction of this defect is mandatory when it is recalled that 60 per cent of brain growth is completed within the first year of life. Any arresting process such as cranial suture closure within this first year will have disproportionate effect on brain development as compared with other body organs whose initial rate of growth is not so striking. Surgical correction can help bring about a more normal contour of the skull, and, although cosmetic considerations are not primary in this disease, treatment will aid appearance as well as provide space for proper brain growth. Operative correction should be undertaken at the time the diagnosis is made, which should be in the first months of life (see Figures 1 and 2).

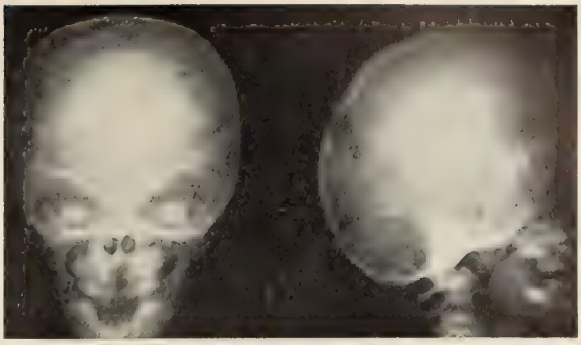

Figure 1.—Preoperative roentgenograms of a 5-year-old boy with advanced skull deformity and mental defect associated with premature closure of the coronal suture.

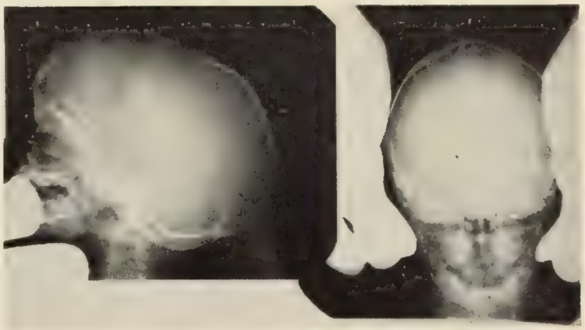

Figure 2.—Preoperative roentgenograms of a 10-month-old boy with early skull deformity and slight developmental retardation associated with premature closure of the saggital suture.

SCALP AND CRANIAL MASSES

It is a temptation to remove innocent appearing tumors of the scalp and underlying tissues without elaborate neurosurgical investigation. It is well, however, to recognize certain conditions which may be associated with major intracranial complications. This is particularly true of lesions which appear in the lines of closure of sutures and infolding of the developing central nervous system. Midline lesions, for example, are always suspect. Too often the small "wen" lying in the mid-saggital plane of the scalp turns out to be a dermoid cyst and at times is connected with the intracranial space by a stalk or sinus. Local excision may be followed by a discharging tract, suppuration and intracranial complications of severe nature. The mass may be fluctuant and, if it contains blood, it may be a pericranial sinus. If it contains cerebrospinal fluid or brain tissue, it may be a cranial meningocele or encephalocele. Careful consideration of the nature of these masses will permit adequate planning for corrective operative treatment. Masses which are eccentrically placed also deserve close scrutiny.

Roentgenographic study of the skull including tangential views can reveal bone involvement and should be recommended in all cases. Evidence of a bony lesion in association with a visible mass at once removes the lesion from the "office procedure" group and, as in the case of midline masses, such tumors must be investigated fully and looked upon as potentially necessitating a major procedure. These more complicated lesions may require specialized neurodiagnostic studies.

INTRACTABLE PAIN

The relief of pain should and can be one of a physician's greatest services. For patients in whom local treatment of the offending lesion is no longer effective, surgical measures constitute a major bulwark against pain. An example in point is malignant disease in which the primary tumor or metastatic lesions, or both, cause pain that is not alleviated by mild analgesic drugs. The location of the painful lesion dictates the procedure to be recommended. Pain due to malignant disease which is limited to one side of the face, head or neck can uniformly be relieved by combined sensory root sections of cranial and cervical nerves in a single major operative procedure without resulting motor or psychic paralysis. Pain that is located anywhere below the nipple line, whether unilateral or bilateral in the cases of malignancy, is best treated by anterolateral thoracic cordotomy, which is an operation of precision. The success of this procedure depends not only upon close attention to technical operative details but also upon the careful selection of patients. A life expectancy in excess of four to six months is desirable for the patient to convalesce and realize the full benefits of the procedure. There must be no pain above the nipple line and the patient must not be addicted to narcotics.

It should be noted that this procedure can produce sphincter and motor weakness; such complications are usually transient and occur in a minority of patients. Paralysis is not the uniform sequel of this procedure and it should be recommended before the ravages of disease can cause severe debility and addiction. In patients suffering from abdominal and pelvic malignant disease, cordotomy is gratifyingly successful in relieving pain permanently in 80 per cent of cases.

Pain between the neck and nipple line, including pain in the upper extremity, can, if unilateral, be relieved by high cervical cordotomy. Fortunately severe bilateral pain located above the nipple line is rare and probably is best treated by lobotomy.

A word of caution should be considered with respect to lobotomy. For a severely debilitated or addicted patient with intractable pain or for a patient with bilateral pain above the nipple line, this procedure can be merciful. The price of unawareness of pain, which is the result of lobotomy, however, is personality alteration or at times annihilation. The family may no longer recognize the patient as a close relative but see him only as a stranger whose social consciousness is blunted. Intelligent patients and members of the family may prefer suffering to the possibility of personality destruction. It is, therefore, desirable to recommend the more precise and specific pain relieving procedures wherever possible before the disease becomes far advanced, and before the need for lobotomy arises (see Figure 3).

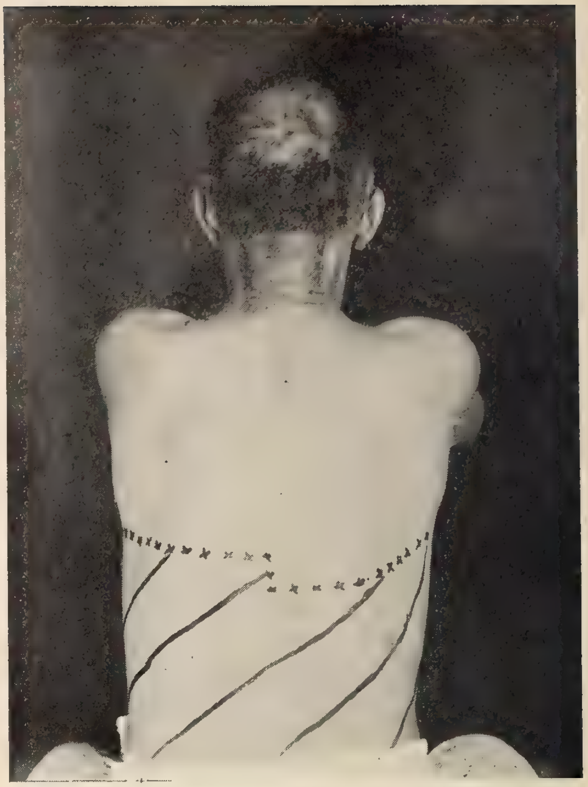
Figure 3.—Photograph showing the operative scar at the site of thoracic cordotomy and the level of total analgesia several inches below.

THE OCCURRENCE OF SPECIFIC SYMPTOMS

What common symptoms of disease are frequently treated as diseases themselves without regard for the underlying causative factors?

Epilepsy. Convulsive seizure or epilepsy is one such symptom. Little by little the wastebasket of idiopathic, essential or cryptogenic epilepsy is being emptied as we understand more of the etiologic factors behind abnormal electrical discharge within the brain. Epileptic discharge, which may masquerade as a blackout, a faint or a period of amnesia, or

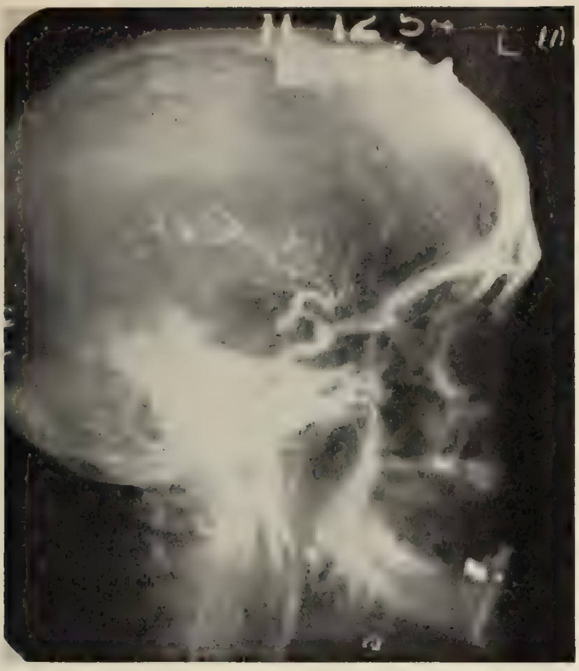

Figure 4.—Lateral angiogram demonstrating the prominent saccular aneurysm arising from the left internal carotid artery.

take the form of a specialized sensory or motor seizure, deserves careful study. Such study may require detailed observation and examination to determine the nature of the spell.

Every patient with seizures deserves assessment with an eye to uncovering focal brain disease. The location and nature of the brain disease will determine its amenability to surgical attack. Methods that can be employed include repeated electroencephalographic tracings, the use of plain radiological and gas contrast studies of the brain and cerebrospinal fluid channels, positive contrast studies of cerebral angiography, radioactive tracer uptake studies, and of course repeated neurological examinations. If the epileptic attack is due to a potentially lethal lesion such as neoplasm or abscess, it is quite understandable that the surgical effort must be directed toward this primary disease, and the treatment of the epilepsy itself becomes a secondary consideration. When the cause of the attacks is a nonprogressive process, the treatment of the convulsive disorder is the primary goal. Incapacitating seizures which are not satisfactorily controlled by medical therapy and which are due to a single accessible focus can be treated successfully by surgical means. Each case must be considered individually, for many are unsuitable for operative treatment. A hemiplegic cerebral spastic child with convulsions may be gratifyingly relieved of seizures and his rehabilitation accelerated by excisions of the severely diseased cerebral hemisphere. An adolescent or adult patient who harbors a developmental defect, a traumatic or postinflammatory scar or area of local vascular insufficiency with resultant abnormal excitation of the brain, is within the scope of surgical aid.

Subarachnoid Hemorrhages. This condition, like epilepsy, is another symptom which all too commonly is treated as a disease *per se* while the primary lesion remains undiscovered and consequently a potential danger to the patient. The symptom of spontaneous subarachnoid hemorrhage (the epithet excludes from consideration examples of trauma to the central nervous system) occurs commonly in the prime of life. The natural processes occurring at the time of the initial hemorrhage cannot be altered by treatment. But something can be done to decrease the incidence of recurrent bleeding, an incidence as high as 35 per cent to 50 per cent in some series and an incidence which carries a mortality of equal proportion. Such grave figures emphasize the need to pursue investigation of the cause of the hemorrhage. By far the most common cause of bleeding is the rupture of an intracranial congenital aneurysm. Other arterial and venous lesions, blood dyscrasias, tumors, etc., account for the remaining cases which are not due to arterial disease and hypertension. When favorably located, the intracranial aneurysm can be treated surgically. Its locale and environment, its configuration and possible associated lesions can be determined by the use of bilateral visualization of the intracranial circulation—by carotid and occasionally vertebral angiography. The aim of the surgical procedure is to isolate the aneurysm from the normal arterial stream without compromising the cerebral circulation. Other lesions responsible for subarachnoid bleeding are also occasionally amenable to surgical treatment (see Figure 4).

It must be remembered that surgical treatment of such diseases is fraught with uncertainty and risk. However, the risk of an unattended lesion is even greater, and effort must be directed toward these lesions which are remediable. The only way to determine which lesions can be treated is to study every case of spontaneous bleeding.

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Gynecology Celebrates a Centennial

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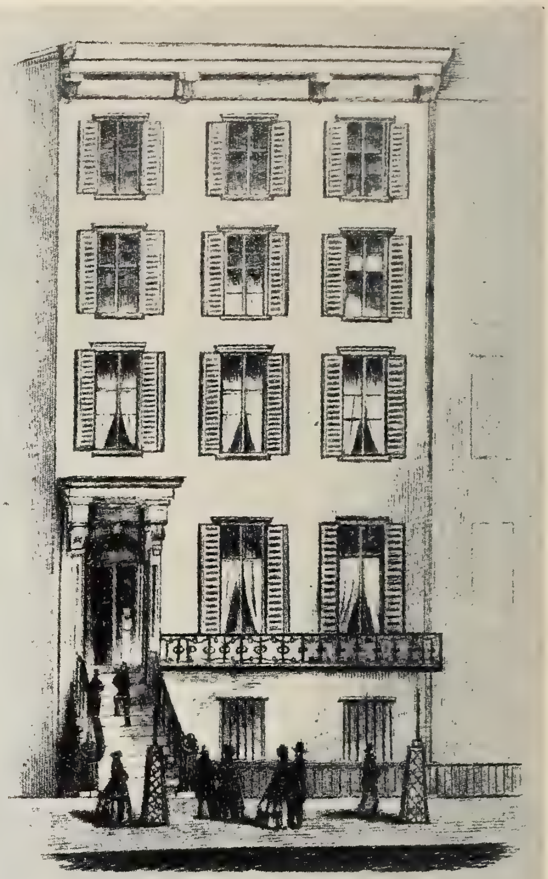
GYNECOLOGY as an independent specialty is just completing its first one hundred years. Until the middle of the Nineteenth Century little was known and less done to alleviate the suffering of women. Gynecologic practice was limited to the treatment of erosion with silver nitrate, leukorrhea with oak bark solutions and uterine prolapse by the employment of a ball pessary. Gynecologic operations were rarely done, which is not surprising when we consider that asepsis, even antisepsis, had not yet been dreamed of; anesthesia was still in the future; and knowledge of clinical anatomy, physiology and pathology was meager indeed. True, the abdominal cavity had been surgically invaded a few times, but only in emergencies and as a last resort, the almost 100 per cent mortality making any other indication out of the question. Obstetrics was chiefly the function of the midwife, and even the obstetrical specialists "were content when they brought a living child into the world and saved the mother; responsibility for future ills being laid upon the gynecologist."[4]

Such was the state of affairs in the gynecologic world at the middle of the Nineteenth Century when events unfolded which brought about the birth of gynecology as a specialty. According to Ricci, "More was accomplished towards the solution of gynecological problems during the last half of the Nineteenth Century than in the previous 2,000 years."[4] The stimulus that brought about this awakening and started this development, according to George Gray Ward, "originated in America, as a result of the genius and historic efforts of Marion Sims. He gave the impulse which upset the do-little conservative treatment of disease of women which then prevailed and opened wide the field of active surgical, scientific and rational methods that are now in vogue."[7]



THE WOMAN'S HOSPITAL—1855
Located at 83 Madison Avenue

It was one hundred years ago (May 4, 1855) that the Woman's Hospital in New York, the first hospital in the world "dedicated for the treatment of diseases peculiar to women," opened its doors to the public. Founded by the inspiration and efforts of J. Marion Sims, who came to New York from Montgomery, Alabama, after his successful repair of the, up to then, incurable vesicovaginal fistulae, "the hospital soon became the seat of instruction in gynecology for the medical profession, not only of America, but of the entire world, and was the foremost influence throughout the world in developing and establishing the great surgical specialty of gynecology."[2]

Because of the profound influence of the man and the hospital, today Marion Sims is acknowledged as the father of modern gynecology and the Woman's Hospital as its birthplace. This year, "Woman's," as it is affectionately referred to by those who have basked in her glory and partaken of her knowledge and experience, will celebrate with appropriate ceremonies its century of service to womankind. What a rich heritage it has! For sheer thrill and inspiration, there are few stories in medicine, or anywhere

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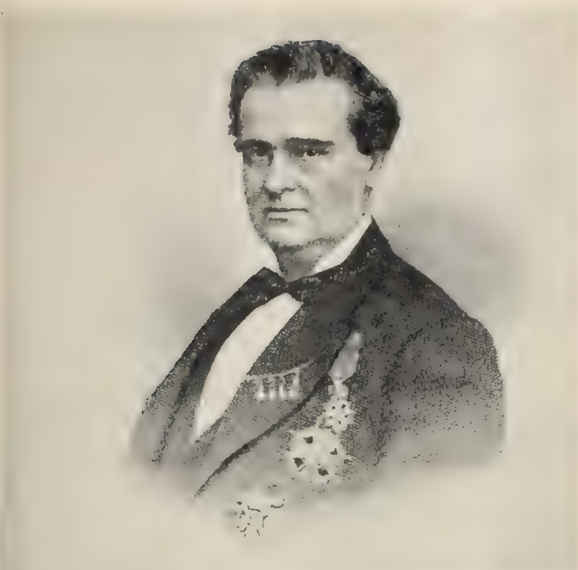
Chairman's address: Presented before the Section on Obstetrics and Gynecology at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

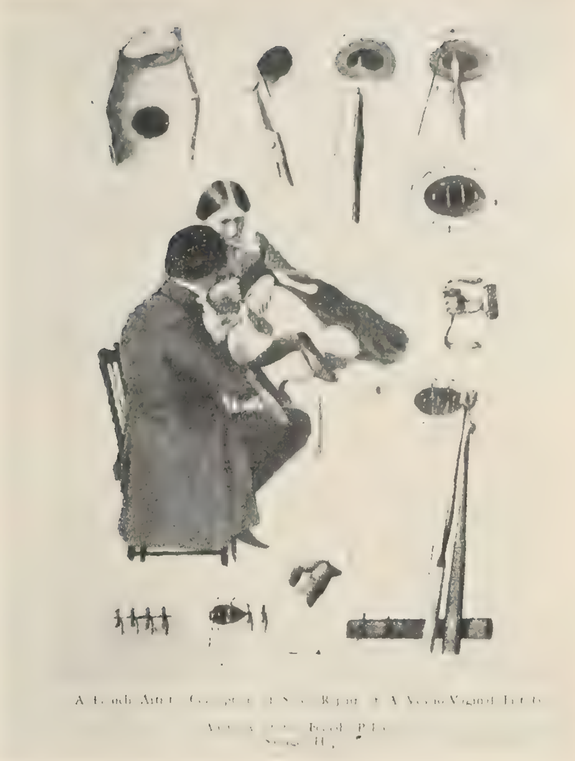


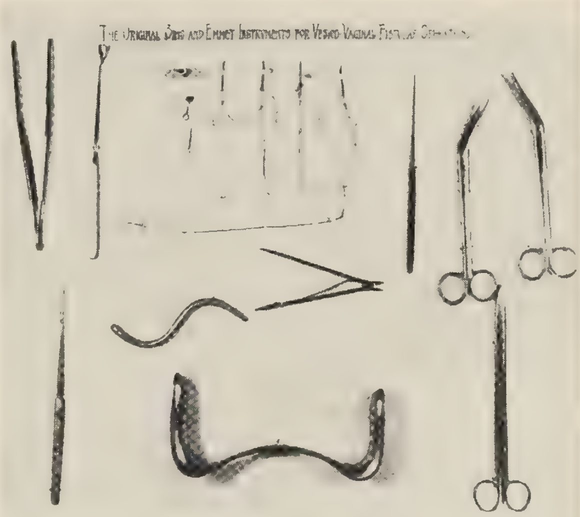
Dr. J. Marion Sims,—"whose name will be known as long as the
1874 *English language shall be spoken."*

for that matter, that compare with the story that began humbly yet momentously a hundred years ago.

The career of Sims, with its hardships, struggles and, finally, unparalleled success reads like an Horatio Alger success story. Born in South Carolina of English and Scotch-Irish descent, he began his study of medicine with a year as apprentice to Dr. Churchill Jones, an eminent South Carolina surgeon, to whom Sims gives credit for his inspiration for surgery. In 1833 he enrolled and spent one year at the Medical College of South Carolina at Charleston. He completed his final year at Jefferson Medical College, Philadelphia, graduating in 1835.

After graduation, Dr. Sims returned to his home town of Lancaster, South Carolina, to practice. There his first two patients died. Disheartened, he moved to Alabama, first to the town of Mt. Meigs and then to Montgomery where he became known as an able surgeon and prospered. Here in 1837, he removed the lower jaw of a patient without mutilation and in another case the superior maxilla for a tumor of the antrum. He was the first in the South to cure clubfoot, and one of the first to operate for correction of strabismus. In 1845 he reported a successful operation on harelip. These experiences and successes trained and prepared him for the great adventure of his life. It was in the small southern community of Montgomery that he struggled for a cure of vesicovaginal fistula and finally succeeded. In that day the lack of obstetrical knowledge and the infrequent use of obstetric forceps led often to long, obstructed labor, the resulting pressure necrosis of the bladder and anterior vaginal wall giving rise to fistula. Every community had a number of pitiable cases. Surgeons the world over had tried to correct the condition but with very discouraging results—hundreds of trials but only occasional success. The medical profession at the middle of the Nineteenth Century admitted defeat and referred to the lesion as incurable. Thus it was in 1845 when Sims became interested in the problem.




THE ORIGINAL SIMS AND EMMET INSTRUMENTS FOR VESICO-VAGINAL FISTULA OPERATIONS

ORIGINAL INSTRUMENTS OF J. MARION SIMS, M.D

[illegible] Woman's Hospital In The State Of New York [illegible]
The Wetmore And Baldwin Pavilions
[illegible] Waldorf-Astoria [illegible] Park Av. N.Y.C.

In that year Sims saw three cases of vesicovaginal fistula within a period of three months. Considering the condition incurable, he dismissed the first two patients. A few weeks later as he was about to dismiss the third patient, a Negro slave, an incident happened which proved to be the turning point in his career. He was called to see a young woman suffering acute pelvic distress due to an impacted retroverted uterus resulting from a fall from a horse. Placing the patient in the knee-chest position, he introduced his finger into the vagina, accidentally elevating the perineum so that air rushed into the vagina, distending and ballooning it out so that he obtained a clear view of the entire vaginal wall. A light flashed through his mind as he visioned how he could thus expose a vesicovaginal fistula and make it accessible for repair.

On his arrival home, having purchased a pewter tablespoon en route, he placed the previously mentioned slave in the knee-chest position, introduced the bent handle of the spoon, and, in his own words, "saw everything as no man had ever seen before. The fistula was as plain as the nose on a man's face. With the fistulous opening seen in its proper relations, all the principles of the operation were presented clearly to my mind. From this moment my high resolve was taken."[7]

That was the beginning. Sims worked four years before he was successful and cured a patient. He built a hospital with 12 beds in his back yard for his patients, all of whom were Negro slaves. His report shows he operated 40 times on three patients and 30 times on one of them during this experimental period before a single cure was effected.

His story is an exhibition of faith, determination and perseverance seldom found in man. We in this day can learn much from his simple story. Failure piled upon failure as weeks, months and years passed. Only a man inspired could have struggled on.

When his physician friends tired and left him, he trained his slave patients to hold the retractors and to assist with operations. Thus, while waiting for the tissues to heal after an unsuccessful operation, a patient would help him operate upon her sister-sufferers.

To keep the bladder empty, Sims developed a tin metal retention catheter. Still failure stalked his every effort. His next innovation was to use lead shots on sutures instead of knots to get snug apposition in accessible areas. But still, as related in his own words, "The operation was mechanically perfect, but with no better results than when it was rude and clumsy."[4] Then came the change which proved to be the difference between failure and success, namely, the substitution of silver wire for silk sutures. Obtaining the special fine silver wire from a jeweler, he was ready, Again, in his own words: "On the 21st of June 1849, it was done. A young colored woman, named Anarcha, who had never murmured at the preceding failures, was placed on the operating table for the thirtieth time, and the silver sutures were applied, with leaden bars and the perforated shot. On the eighth day with a palpitating heart and an anxious mind I turned the patient on her side, introduced the speculum and there lay the suture apparatus just exactly as I had placed it. There was no inflammation, there was no tumefaction, nothing unnatural, and a very perfect union of the fistula. I shall not dwell upon my feelings at this time. At last, I had attained what I had worked for nearly four years; and it was but a few weeks before all the cases were cured that had been the subject of experiment for so long a time. I was anxious to get a few more cases to settle some doubtful point, before publishing to the world my discovery."[4] The *American Journal of Medical Sciences* published in January 1852 James Marion Sims' paper entitled, "On Vesicovaginal Fistulae." Illustrated with woodcuts, it reported six successful cases.

Sims had expended a large portion of his private means to finance his experiments and hospital in those four years, for the patients with vesicovaginal fistula he had kept at his own expense. Moreover, constant mental tension, great responsibility and the daily grind of medical practice had undermined his health and he contracted chronic dysentery. Seeking health in a northern climate he went to New York City and to the second great and important medical adventure in his life.

At first he received a warm welcome in New York, all influential physicians joining with him to activate his dream to found a hospital for the care of women suffering with vesicovaginal fistula. But soon petty professional jealousies arose, and former friends then bitterly opposed his revolutionary ideas. Dr. Meredith Reese protested that there was "no need for a hospital to treat women's diseases as the field was too limited." Anyone, he thought, could apply silver nitrate through a cylindrical speculum to an ulcerated cervix; apply an astringent solution for leukorrhea and insert a pessary for prolapse.[4]

Sims, always a fighter, was undaunted, and with the aid of a newspaperman, Henry L. Stuart, and Dr. John W. Francis, he interested a few influential and farsighted women in the project. On February 10, 1855, some thirty ladies met in St. Mark's Place, drew up a constitution for the Woman's Hospital Association and for a new charitable institution to be known as the Woman's Hospital.

A house was rented at Madison and Twenty-ninth Street for $1,500 a year. Modestly furnished and supplied with a fund of $2,500 for the first year's operating expenses, the hospital was a "going concern." On May 4, 1855, less than three months after the first organizational meeting, the new hospital opened its doors to the public. J. Marion Sims was resident surgeon, and there was a consulting medical board. "Two matrons, one to attend to the domestic concerns, and the other to administer under the surgeon's order to the sick, and a nurse, completed the officers of the hospital." The hospital contained 30 beds. To the poor the beds and all the hospital facilities were free; those able to pay and occupying separate rooms were charged varying amounts from $3.00 to $10 a week. Some rules of the hospital: "All patients desiring to leave must give one week's notice. Gentlemen could only remain twenty minutes in the wards and were not allowed in the evening. Lights were extinguished at 10 p.m. and private rooms using gas after that hour were charged for same." The first patient was an Irish immigrant, Mary Smith, who had a bad fistula, which her physician in Ireland had tried to help by using a wooden "seine bob" which floated into the opening. It had become encrusted with phosphatic deposit. After many operations at "Woman's" she was cured; and she then stayed on as a nurse in the hospital. During the summer months the hospital was closed, as it was felt that wounds did not heal well in hot weather. Anesthesia was not used at "Woman's" until after the Civil War, more than ten years after the opening of the hospital.

On February 9, 1856, when the first anniversary meeting was held, a report was made that in the nine months of operation of the hospital, "sixty patients had been admitted, twenty-one of whom had been discharged perfectly cured and that all the patients still remaining in the hospital (with one exception) were pronounced by the resident surgeon curable."[2] It is interesting to note that in a "report of all operations performed at the New York Hospital January 1848, to April 1851 (three plus years), not a single gynecological operation had been performed at that hospital."

THE WOMAN'S [illegible] -1906-1955
[illegible]

"While the first patients in the hospital were sufferers from vesicovaginal fistula, various gynecological operations were soon developed, until the fame of the institution as a fountainhead of knowledge for the cure of the many ailments peculiar to the sex became widespread throughout the land, and the hospital became the Mecca of all who wished to perfect themselves in gynecology."[7]

With such interest, the capacity of the original hospital soon became inadequate. The new idea of the surgical approach to gynecological problems was "catching on." Sims became the undisputed leader in the country. Through his efforts, in 1858 the city of New York gave the hospital a plot of land, a square block area on Park Avenue between 49th and 50th streets, the present site of the Waldorf-Astoria Hotel. The site had served as Potter's Field during the cholera epidemic of 1832, and 47,000 bodies had to be removed from the area.

On this site a new hospital, the Wetmore Pavilion, was built. It was opened October 12, 1867, with accommodations for 75 patients. Ten years later a second building similar to the first, the Baldwin Pavilion, was finished and opened. The majority of the beds here were free; others ranged from $6 to $15 a week. All medical and surgical services were still free.

With its greatly increased capacity and facilities, the hospital now assumed its rightful place as the center of the gynecologic world. Here Sims, Emmet, Thomas, Peasley, Noeggarth, Goffe, Bissell with others worked and firmly placed modern surgical gynecology on a secure footing.

The Park Avenue site was sold, and in 1906 the present hospital, the third to carry the name Woman's Hospital, was opened on West 110th Street. Exclusively a gynecological hospital for the first 55 years, in 1910 a maternity department was inaugurated and since that time has become an important part of the hospital service both to its patients and in a teaching capacity. In 1915 two wings were added, one as a nurses' home and the other called the Thompson Pavilion. In 1952, the hospital was modernized. The surgeries were air-conditioned and the interior was in other ways brought up to date. In 1953, joining the trend to mergers and to give the advantages of a larger medical center, the Woman's Hospital became affiliated with St. Luke's Hospital—still, however, maintaining its identity and remaining in the same building on 110th Street.

Now, back to Sims who started this chain of events. What manner of man was he that he was able to revolutionize and so change the order of things?

Dr. Emmet described his great chief thus. "Dr. Sims was by nature a surgeon and one of the most dexterous operators I have ever witnessed. He was bold and self-reliant, never at a loss, and his ingenuity was unequaled. He was in no sense a plodder, for his mind and body were always too restless and active. He was so fertile in resource, when I first knew him, that he perfected scarcely a tithe of the brilliant conceptions passing constantly through his mind; and it was impossible to see him perform the most simple operation without learning something new. In perfecting the preparatory treatment, in devising the needed instruments and by overcoming the difficulties in operating for vesicovaginal fistula, Dr. Sims exhibited a degree of pertinacity seldom seen."[1]

A prominent orator thus appraised him. "He possessed the qualities ideal in the makeup of a truly great surgeon, namely, the brain of an Apollo, the heart of a lion, the eye of an eagle and the hand of a woman."[7]

Another interesting incident recorded by Emmet shows that the physicians of a hundred years ago had problems similar to ours in hospital practice today. "Dr. Sims proposed to open the abdomen for the removal of a pedunculated fibroid. His hospital consultants were Doctors Frances and Mott, who were first disposed to yield to Dr. Sims until Dr. Stevens entered a protest, to wit: That Dr. Sims' views might be all right, but he felt that if Dr. Sims should succeed, by chance, every young surgeon in the land would be ripping open the bellies of young women to ascertain if they had such growths to be removed, and he would oppose such an operation simply on the grounds of humanity."[1]

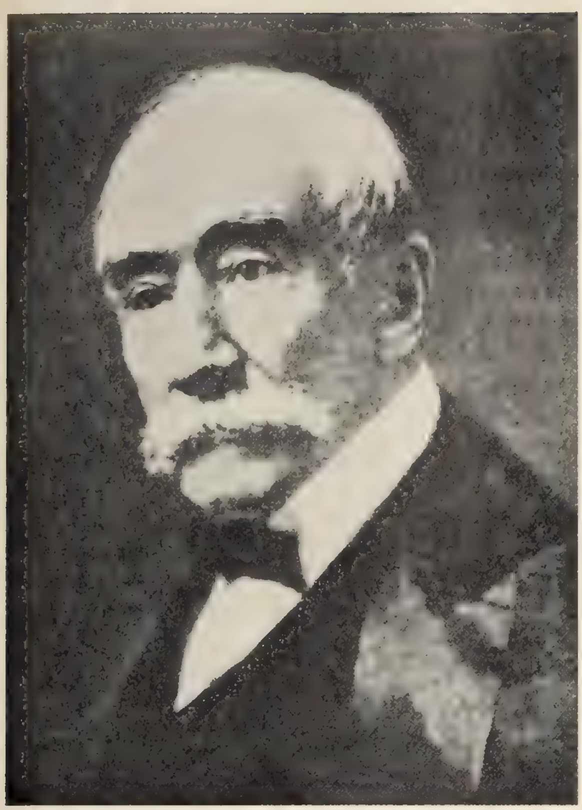
In June 1861, as the Civil War approached, Sims, having Southern sympathies, decided to vacation in Europe. Also, he was making preparations for the new Woman's Hospital and wanted to study hospital construction abroad. While there he interviewed Florence Nightingale, at the time an authority on the "latest in hospital construction." He was received enthusiastically in Ireland, England, Scotland, France and Belgium; and he successfully performed his operations in famous clinics in those countries. He was acclaimed by both profession and royalty. Among his select list of patients in Europe were: Duchess of Hamilton and Lady Mary Hamilton; Empress Eugenie, wife of Napoleon III, and the Empress of Austria.[1]

In London in 1866 he published his textbook "Clinical Notes of Uterine Surgery,"[5] printed simultaneously in English, German and French. Full of original thought and ideas and teaching new and valuable lessons, the book created a sensation. According to James Pratt Marr, this work of Sims "revolutionized modern gynecologic practice." Quoting further from Dr. Marr, "The era of what must properly be called 'Modern Gynecology,' that is operative gynecology, dates, so far at least as the world outside of the Woman's Hospital is concerned, from the year 1866. Sims now had an international reputation as the world's foremost gynecologist."[3]

In 1870, in Paris, Sims helped to organize the Anglo-American Ambulance Corps and, as its surgeon-in-chief, he with seven American and eight English surgeons saw service in the Franco-Prussian War. In charge of a 400-bed military hospital on the battlefield of Sedan, he treated both French and Prussian soldiers.

He returned to New York and the Woman's Hospital in 1872, but resigned from the staff in 1874 because of a rule passed by the lay board of managers limiting the number of spectators at operations to 15. Sims' reputation was such that his operative clinics were packed with both American and foreign physicians. Therefore when the board refused to rescind the rule, Sims departed. In 1880, however, he became consulting surgeon at the hospital and in that capacity he remained until he died of coronary artery disease at age 71 in the year 1883.

Thus ended the life of the world's first great gynecologist—truly, the father of modern gynecology. His genius and inspiration opened up the whole new field of surgical approach to gynecologic problems. While by accident of circumstances his tremendous energies were directed in one specialty, his vision and capabilities and scientific grasp embraced the entire field of surgery. A pioneer in so



THOMAS ADDIS EMMET

many fields, his is the honor of so many "firsts" in medicine—the true test of real genius. In 1846, Sims published an article on "The Nature and Cure of Trismus Nascentium." It was not until 40 years later, however, that his theory and findings were confirmed and accepted. To him goes the honor of originating the operation of cholecystotomy, independently of Robb of Indiana who had preceded him by a few months. With experience gained in the Franco-Prussian War, he was the first and foremost advocate of prompt opening of the abdomen in gunshot and traumatic intraperitoneal injuries to arrest hemorrhage and repair injured bowel. Rabid and bitter opposition to his views—since proved correct—were voiced by the great surgeons of Europe and America. The shooting and slow septic death of President Garfield kindled the flame of the controversy and was the stimulus of his far advanced and scientific principles on the subject. He pioneered operations for cystocele and prolapse and rectovaginal fistula. Emmet credits Sims with first suggesting bimanual examination. He invented the tenaculum, the depressor, the Sims speculum, a flexible copper sound, a uterine elevator and block tin pessaries. He was the first to substitute silver wire for the barbarous quill sutures in perineal repair operations. But, undoubtedly, "Sims' undying fame will rest upon his great original work in the field of vesico and rectovaginal fistula and the founding of the Woman's Hospital."[2]

His great achievement in the cure of vesicovaginal fistula was not priority, as most of the main points stressed by him had been previously advocated by others. He coordinated, rationalized and simplified the technique and for the first time made success the rule.

Sims was the author of some 78 papers on many gynecological and other subjects. In addition his autobiography, "The Story of My Life,"[6] was published after his death.

He was honored by many foreign governments. Among his numerous decorations are the following: Commander of the Legion of Honor of France; Knight of the Order of Isabella the Catholic of Spain; Knight of the Order of Leopold of Belgium; the Iron Cross from Germany and two medals from Italy.

One of the founders of the American Gynecological Society, he was its president in 1880. He was president of the American Medical Association in 1876, and was honorary president of the International Academy of Medicine held in Geneva in 1881.

A statue to his memory was erected in 1894, in Bryant Park, New York City, and in 1934 it was moved and rededicated on a new site on Fifth Avenue opposite the New York Academy of Medicine. In his native state of South Carolina, on the capitol grounds, a memorial statue erected in 1929 carries this inscription, "The first surgeon of the ages in ministry to women, treating alike empress and slave. He founded the science of gynecology, was in all lands honored, and died with the benediction of mankind."

Thomas Addis Emmet, as Sims' assistant, had a wonderful opportunity to acquire his mentor's technique and craftsmanship. For almost fifty years Emmet continued as surgeon at the Woman's Hospital, pioneering in new fields, especially in vaginal plastic operations. As Ricci so beautifully puts it, "The torch so brilliantly lit by Sims glowed even more vigorously in the original hand of Emmet."[4]

By 1868, only seven years after Sims left Woman's Hospital and went to Europe, Emmet had operated on more than 300 patients with vesicovaginal and rectovaginal fistulae.[4] What a tremendous experience! With Sims' 312 cases by the year 1864, this made a total of more than 600 cases by the two surgeons. Compare this to the report of "all operations performed at the New York Hospital, January 1848, to April 1851 (three plus years), when not a single gynecologic operation had been performed at that hospital."[4] What a change 15 years had wrought! Emmet pioneered the study of the lacerated cervix and developed operations for its repair. He devised a technique of perineal repair which was the standard for 40 years. To him is accorded the credit of being the first great vaginal plastic surgeon of the world.[4] He conceived and devised the hot water treatment for pelvic congestion and inflammation. The vaginal douche was first conceived by him.

Sims and Emmet set the stage, gave the stimulus and inspiration and made the Woman's Hospital the "fountainhead" in the world for gynecological plastic operations—a position it has jealously held through these past one hundred years. "Emmet's art found even fuller mastery in the worthy contributions to plastic surgery of his able successor, Dougal Bissell."[4] Bissell's careful and delicate touch and his respect for tissues, coupled with a master's art of execution, started the present-day concept of tissue planes and the so-called radical repair of vaginal hernias, rather than the "roll-in" procedures of his predecessors. J. Riddle Goffe contributed in many fields, but will be remembered most for the development of a technique for vaginal hysterectomy as a method for treating genital prolapse. Byron Goff clarified our views on vaginal anatomy and gave us a simple and effective method for perineal repair.

George Gray Ward, chief surgeon at the Woman's Hospital from 1918 to 1938, was a man of dynamic personality. Dr. Ward's greatest contributions were the reorganization of the hospital staff, the standardization of its procedures, the improvement of hospital records and the establishment of the annual audit of scientific results. One of the first in this country to use radium in the treatment of cancer of the cervix and uterus, he was an authority for a quarter of a century in this field. Those who had the privilege of working with him (the author among them) both feared and revered him. A hard taskmaster, he had no patience with incompetence or half effort. He was a fine clinician and teacher; and took great pride in those men he helped to train. Member and at one time or another president of almost every society in his field, and one of the founders of the American College of Surgeons, he was one of the foremost American gynecologists since the turn of the century. He added additional laurels to the fame and standing of the Woman's Hospital in which he took such pride. True to the traditions of Woman's, he excelled in vaginal plastic operations and wrote extensively in this field. His "cystopexy," "rectopexy" and vaginal hysterectomy techniques were widely cited. He was one of the first to call enterocele to the attention of the profession and his method of repair is a standard procedure today.

With Dr. Ward's retirement in 1938, Albert H. Aldridge became chief surgeon of the hospital and he has continued in that capacity to the present. Under his able leadership and with help from such capable men as Ralph A. Hurd, Ralph L. Barrett, J. V. Davies, Arthur J. Murphy, George Bemis and others, the Woman's Hospital has continued to wield important influence in the gynecologic world.

This year we join with fellow-specialists and physicians the world over in a salute to "Her Majesty," that great institution, the Woman's Hospital, the mother of modern gynecology, as she proudly celebrates one hundred years of unparalleled service to womankind and the medical profession. This centennial year finds her with a rich and noble past, holding her head high and still occupying a leading position in present-day gynecology—especially in that field of vaginal plastic operations in which the members of her staff have pioneered so long. Section Nine, of the articles of incorporation of the hospital, adopted one hundred years ago, reads: "The primary object of the hospital is the direct relief of suffering humanity. The second object is the extension of this relief to the widest possible degree by using it as a school of practical instruction of the medical profession."

True to her birthright, so nobly won for her by Sims and Emmet and carried on by those dedicated physicians who have followed in their footsteps, the hospital has carried on her heritage and fulfilled that pledge by sharing and giving to the profession her secrets, knowledge and benevolence. How well she has lived up to her avowed purpose. As she embarks on a second century of service, may she continue as nobly to serve both patient and profession.

229 North Central Avenue, Glendale 3.

ACKNOWLEDGMENT

Acknowledgment is hereby made to J. Marion Sims' autobiography, "The Story of My Life"; to J. V. Ricci's "One Hundred Years of Gynecology" and to James Pratt Marr's "James Marion Sims" for much of the background information for this paper.

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Reading Disabilities in Children

A Symposium

CHAIRMAN:
Arthur Jampolsky, M.D., *San Francisco*
PARTICIPANTS:
Kenneth A. Grow, M.D., *Beverly Hills*
Hale F. Shirley, M.D., *San Francisco*
Leo F. Cain, Ph.D., *San Francisco*
Lucie I. Lawson, Ph.D., *San Francisco*

Introduction

ARTHUR JAMPOLSKY, *M.D.*, San Francisco

Poor readers are a problem for ophthalmologists, pediatricians, psychiatrists and educators because the problem may involve the eyes, the ears, personality disorder or teaching method. Several questions present themselves; namely: Is the problem exaggerated out of proportion to its value; is the increase in interest and awareness a result of a real or apparent increase in numbers of poor readers? Certain it is that the problem is not new. It is a matter of degree and of renewed interest by doctors, educators, overworked teachers and irate parents. The blame has been placed upon teaching methods, eye and other physical defects, social and home conditions, and television. Each discipline naturally tends to emphasize its own tenets in relation to the problem, or to ignore responsibility in connection with it, or shift responsibility.

It becomes obvious that it is a multifaceted problem involving several disciplines. Further logical and acceptable questions that may be posed are: Is the real or apparent increase in numbers of poor readers a product of teaching methods, increased demands, emotional problems, neurological disorders or physical defects? How does one diagnose cause and effect? What are the prophylactic measures and treatment and by whom should they be rendered? What may parents do to help, or is it preferable that they not try to help?

Although much is known about the various factors involved, there is frequently a lack of communication or exchange of ideas. The present panel has been selected to present a broad approach to the problem because of their special training and experience. It is desirable to see what convergence or divergence of ideas there may be by discussing the points of similarity or dissimilarity.

The panel members are: (1) Dr. Lucie Lawson, psychologist and remedial reading specialist; (2) Dr. Kenneth Grow, ophthalmologist; (3) Dr. Hale Shirley, psychiatrist; (4) Dr. Leo Cain, educator.

Ophthalmological Factors

KENNETH A. GROW, *M.D.*, Beverly Hills

Reading disabilities might not be considered a problem for ophthalmologists, but it becomes a problem for them on the same basis as any systemic disease with ocular manifestations. Moreover, ophthalmologists frequently are the first to be presented with problems of reading disability. Many teachers and parents believe that because a child is unable to read, he probably has something wrong with his eyes. Hence he is referred to an oculist for an eye examination. It is easy to do a thorough examination, to find that glasses may or may not be needed and discharge the patient. However, the responsibility is not so easily discharged. A few simple questions may uncover the real problem of reading disability.

Reading disability starts as a problem for the educator, who should determine if the proper method of teaching is being used. The child having the disability could have been referred to his family physician or pediatrician to see that his general health does not impede his learning; to an otolaryngologist to establish that adequate hearing exists, or to a psychiatrist to evaluate mental ability and mental health.

Reading disabilities may be generally classified as *specific* and *nonspecific*.

The term *specific reading disability* is used for cases in which there is confusion in the recognition of language symbols, with reversals, inversions, omissions, substitutions or other faulty interpretation.

Presented before a Joint Meeting of the Sections on Eye, Ear, Nose and Throat, General Practice and Pediatrics, at the 84th Annual Session of the California Medical Association, May 1-4, 1955.

Nonspecific reading disability is used to identify cases in which ocular abnormalities, low intelligence, emotional or other factors prevent normal progress in learning to read.

Ocular abnormalities responsible for poor reading are easily recognized; and if a child has average vision, reading difficulty cannot be considered an eye problem. It is obvious that if the visual acuity is reduced 50 per cent or more, the child will have difficulty in interpreting symbols because he cannot see well, just as a deaf child will have difficulty with pronunciation. However, the effect of moderate refractive errors has been grossly exaggerated. Except in cases of pronounced refractive errors, a child's power of focusing is sufficient to give adequate vision. Indeed, slight myopia may even be an advantage rather than a disadvantage in reading.

The presence of muscle imbalance or "crossed eyes" (provided there is normal vision in one eye) has little or no effect on reading ability, since vision in one eye is adequate for reading and the image in the nonfixing eye is suppressed so that there is no confusion or "incoordination." Depth perception, variation in image size as seen by the two eyes, and eye movements have been ruled out as a contributing cause.

Once an eye problem or other cause for nonspecific reading disability is ruled out, how shall we recognize the specific reading disability? It occurs more frequently in boys than in girls. Children who have such a disability are of average or better than average intelligence but there is a disproportionate retardation of reading skill, often associated with poor writing and spelling.

They may be normal or above normal in arithmetic, art and other subjects where reading is not essential. There is a high incidence of left handedness, or ambidexterity in these children, with a confusion between right and left that is out of all proportion to that normally seen. This is the so-called "spatial confusion" which causes the child to transpose or confuse certain letters such as *b* and *d*, and *p* and *q*. Short words such as *was* and *saw*, *on* and *no*, *not* and *ton*, are reversed and there is confusion between words like *dog* and *boy*, *stop* and *spot*, and numerous others. Confusion of this type is relatively normal in all beginners but it is usually outgrown with the establishment of correct left to right sequences. Those with abnormal spatial confusion will have difficulty overcoming this without special training—they have poor visual recall (*i.e.*, ability to remember what they have just seen) and hence, there is a pronounced barrier in learning to read. The severity of the abnormality varies greatly. Some children reverse letters, parts of words, or even whole words. More severe forms involve upside-down writing or drawing, or mirror writing.

Modern methods of teaching children to read place most of the emphasis on visual association. In the "flash" method, whole words are flashed on a card or screen for the child to learn. Frequently, pictorial associations are included. Since phrases and short sentences can be learned as quickly as words, they are used. Obviously, visual memory is of the utmost importance. The emphasis is on speed and on "learning by looking"—which is catastrophic for a child with spatial confusion and poor visual recall, for he is totally unable to learn by this method alone, regardless of the intelligence quotient, persuasion or compulsion.

Many children no longer learn the alphabet, as attested by the increased use of the illiterate "E" or kindergarten charts for vision testing. Bakwin said that 10 to 15 per cent of public school pupils have some reading disability and that it is the major cause for school retardation. Gates stated that reading disabilities are responsible in 99 per cent of the failures of pupils in the first grade, 90 per cent in the second grade and 70 per cent in the third grade.

A return to the earlier concepts of teaching is essential to these children. The earlier methods started with the alphabet, built this into combinations of simple sounds or syllables, then into words that were seen (visual), spoken (phonetic), heard (auditory), and written (kinesthetic). Some children need to hear the word as well as see it, to break it up into parts and say it, and to feel it by writing it. It is interesting to note that a child may write a short word or syllable reversed, but rarely says a word backward. The speech, hearing, and memory association prevent this.

Unquestionably, a child of normal intelligence who wants to read, but cannot, becomes subject to secondary conditions such as stuttering and emotional behavior problems. Soon the teamwork of all of the previously mentioned specialists may be required to untangle cause and effect. It is not at all unusual for the consequences of the specific reading disability to assume greater importance than the original problem. One of the tragedies of this condition lies in the fact that many children have been labeled as mentally deficient—and treated accordingly.

Diagnosis is not difficult but it cannot be made by a person who does not think about the problem or know about it. Assuming that there is no medical problem, a disproportionate inability to read, write or spell in otherwise intelligent children who are left-handed or ambidextrous should immediately alert the examiner.

One of the first questions should be, "How do you do in reading?", "In arithmetic?" A parent can often tell you if there is a tendency for the child to transpose certain letters and words. Once such a diagnosis is made or suspected, a letter to the teacher or parent with a recommendation that remedial reading should be instituted is all that is needed of a physician. Many large cities now have remedial reading clinics that do an excellent job. In smaller areas the parents and the school may have to handle the special training.

As has been said, prevention of such casualties probably lies in a return, to some degree, to the older methods of teaching. Some children will do well with any method. It is certain that not all children will do well if given only one method. Since the majority of children learn rapidly under present systems, it can be argued that the greater good should be served. But everyone probably agrees that the minority should also be considered. In this way, every child will have an opportunity to find his own particular road to reading proficiency.

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Etiology and Emotional Factors

HALE F. SHIRLEY, *M.D.*, San Francisco

TO MAINTAIN PERSPECTIVE concerning reading difficulties, it is worth while to remind ourselves that for at least 99 per cent of the million years or so since he emerged from his simian ancestry, *genus homo* lived his life without the ability to read and write. It was, perhaps, not more than two hundred generations ago that *homo sapiens* began to use visual symbols to any great extent to communicate observations, experiences and ideas from one person to another and from one generation to the next—a development that contributed fundamentally to the rise of civilization. Until recent times, however, the ability to read and write was acquired by only a few who happened to have a special opportunity to do so.

In our western civilization, the assumption has gradually become prevalent that everyone should learn to read and write. Not everyone is expected to become a mathematician or concert pianist, but everyone is expected to become a good reader. Reading has become a basic tool in modern living. It has become indispensable for higher education. Not only a college education but progress in high school subjects has become almost completely dependent upon the student's ability to read fast, to read much, and thus to obtain ideas, facts and implications contained in endless sequences of visual symbols which number in the tens of thousands.

In our present American culture in which social and professional success is popularly measured by the ability to compete successfully, in which standing in school is largely dependent upon the youngster's ability to accumulate facts through the avenue of reading, and in which every up-to-date parent wants his offspring to acquire the advantages of higher education, parents, teachers, and even classmates become tremendously concerned about the child who has trouble learning to read, and aroused emotions not guided by patiently acquired knowledge too often dictate remedial measures which prove to be ineffective and even harmful.

Seldom do we stop to think how wonderful it is that anyone can learn such an exceedingly complicated process as reading. Instead, we rejoice in the low percentage of illiteracy—only to resolve to make it lower. Ambitious parents give their children reading lessons before they start to school. Schools, with certain exceptions, introduce reading at about the age of six. Parents become alarmed if schools, in discussing or planning curriculae, do not keep reading and writing at the very core of primary education. Truant officers try to make certain that all children of school age are in school.

Failure of a child to learn to read the first year or two in school tends to reflect adversely either upon his intelligence and family background or upon the competence of his teachers. Parents, alarmed, puzzled and defensive if their child does not do satisfactorily in reading, begin the process of proving to themselves and others that they do not have a defective child. They begin to tutor and put the pressure on at home. The child may have many capacities which are obviously normal or even superior and which might be cultivated, but these are lost sight of, and all attention, effort and concern are focused upon the child's one glaring shortcoming: If he could just learn to read and write, he would be all right!

If home pressure fails, the most comfortable way for the parents to deal with their feelings of frustration is to blame the teacher. The teacher, then, under parental and perhaps administrative pressure, begins to feel anxious. The most effective way, often, for her to deal with her feelings of frustration is to put the blame on the child: He could learn to read if he would only try, but he won't try!

From the Departments of Pediatrics and Psychiatry, Stanford University School of Medicine, San Francisco 15.

The child, thus, finds himself in a dilemma which he cannot understand and from which he can find no satisfactory avenues of escape. He finds himself the victim of concern, anxiety and resentment, and perhaps punitive measures, with no way of finding relief, status or approval. He begins to feel alarmingly different from his classmates. He loses self-confidence and self-esteem. He may feel rejected, looked down upon and disliked. In defense, he may break out with aggressive, hostile behavior. Or he may become dominated by chronic anxiety, acquiring a variety of nervous habits, withdrawing from social activities, resorting to physical complaints or indulging excessively in day dreaming. He may eventually succumb to defeatism, losing interest in school work, paying little attention to class activities and refusing to try. The longer he remains unable to progress in reading, the more deep-seated becomes his emotional disturbance and also his aversion to trying.

For many years now—at least 25 in the author's personal experience — physicians, educators and parents have realized that reading difficulty is a common and sometimes puzzling educational problem. Hypotheses and theories as to the cause of reading disability have been advanced by the dozen, and each implies its own specific solution. This symposium, however, is evidence that the problem is still with us and that we have not discovered any panacea.

What do we know about learning to read and the difficulties which children encounter in their efforts to do so?

Well, when we stop to think about it, it becomes obvious to all of us, I am sure, that learning to read is a very complicated mental process with many components, want of any one of which may be the cause of failure. Reading may not seem to be complicated to those of us who after 20 years or more have mastered the process to our own satisfaction—and incidentally, it is those of us who have eventually learned to read well who insist that we maintain our culturally inherited but monstrously illogical method of spelling which to so great an extent makes learning to read difficult for anyone. But even if we had an alphabet with a symbol for each sound, and even if words sounded like they are spelled, reading would still be a complicated process with many aspects to consider.

There is no one cause for reading disability. There is no one etiological factor which is found uniformly in poor readers and is likewise uniformly absent in good readers. Children fail to learn to read for various reasons, and in each child the cause or combination of causative factors must be individually determined.

To learn to read, of course, a child must have adequate vision. Dr. Grow has discussed the incidence of visual anomalies found in reading disabilities and the role of the ophthalmologist in their diagnosis. While poor vision is seldom found to be the main cause of a reading difficulty, refractive errors, muscular imbalances and poor oculomotor habits can be contributing factors, and their correction, if present, should be an essential part of a therapeutic regimen.

Physical ill health is also seldom found to be the sole cause of failure to learn to read, yet chronic illness, malnutrition, fatigue and hearing disorders can interfere with school attendance and general performance, thus contributing to the problem.

To learn to read, also, the child must have the mental capacity necessary for reading. About one per cent of the population does not have sufficient intellectual capacity to learn to read at all. Another two per cent can learn only the rudiments of reading. About 15 per cent of children who reach school age will not be ready for reading until they are seven or eight years old, and most of these will never become capable of achieving much beyond the sixth grade level of reading. In most of these children, slowness in starting to read is only one aspect of a slower than average intellectual development, and the child's ability to read keeps pace with the development of his other mental abilities.

For most of these slow learners, special remedial reading methods are not necessary. Such children will begin to read when they are ready to do so, provided they are protected from undue competition and the frustration and disgrace of failure. If they are allowed to progress at their own rate, most of them will develop to the fullest their capacity to read, limited though that capacity may be.

Not all children who are not ready to learn to read at the age of six or even seven, however, are mentally retarded. Many measure as normal on general intelligence scales, and some even as superior. It is now well known that not all of the developmental aspects of a child progress necessarily at the same rate. There are individual differences in rates of nervous system maturation, not only in general but in specific functions. One child who eventually rates in the same intellectual classification as another, for instance, may be slower to walk; another will be slower to talk; another will be slower to learn to read.

If parents and teachers can be encouraged to wait watchfully and patiently until the child displays evidence of readiness and desire to read, most children of normal intelligence will then learn naturally and easily, often soon catching up with the children who get an earlier start. If, on the other hand, the child is pushed into reading before he is ready for it, he is likely to develop emotional tensions and negative attitudes which may further retard his progress or even prevent him from eventually making use of the capacity he has acquired. The result is a nonreader now on an emotional basis.

Dr. Grow has mentioned a specific kind of reading disability which has been variously called visual aphasia, word blindness, developmental alexia, dyslexia and strephosymbolia. He has described the clinical picture. Child psychiatry textbooks have contained a discussion of this condition for over two decades,[2] and in recent years frustrated parents have latched onto it as the answer to all reading problems.

The cause of this kind of reading disability is still a controversial matter. It was at first assumed that there must be neurological impairment, that there must be cortical deficit in the visual associative areas or pathways, but proof of this theory has not been forthcoming. Much has been written also about the possibility that severe reading disabilities are due to alternating or mixed cerebral dominance with a resulting confusion as to spatial orientation and relationships, manifest in such symptoms as a tendency to reverse letters, syllables, and small words, and sometimes in mirror reading and writing.[3]

Studies have shown that a higher percentage of children who are nonreaders than those who learn to read readily do show manifestations of confused cerebral dominance such as ambidexterity or learned right handedness in a naturally left-handed person, or mixed cerebral dominance such as is present when there is right handedness and left eyedness, or left handedness and right eyedness.

It is probable that confused cerebral dominance is an etiological factor in some cases of reading disability, but it cannot be the sole factor in all, for many nonreaders do not show it, and some who do, normally learn to become good readers.

A specific and relatively poor visual memory is said to be another condition which handicaps some children in learning to read by the now widely used "sight" or "flash card" method of teaching reading. Experiment has shown that many if not most children learn to read most rapidly by learning to associate meanings with whole words. There are those, however, who do not learn by this method, or do so with great difficulty. Such children, like those who show evidences of strephosymbolia, learn more readily, at least at first, by utilizing their auditory and kinesthetic avenues of learning. They learn to read best by the so-called "phonic system," learning the sounds of the letters and syllables so that they have a method of sounding out the word when the pronunciation and meaning is not otherwise obvious to them; also, through tracing or copying, by learning the feel of the letter and syllable in relation to its sound as well as to its sight.

The upshot of this matter is that there is not just one proper way to teach reading. Most children seem to be able to learn to read satisfactorily by any current method. Probably most learn to read most readily by a combination of methods. There are those, however, who learn to read best by one method or another, and the problem is to fit the method to the specific need of the individual child.

For many of these children in whom special reading measures are indicated, an important part of the remedial process is the relief of secondary emotional disturbances. Not infrequently the least important part of the tutoring, especially in the beginning, is the specific remedial techniques used, the success in the early stages depending, rather, upon whether or not the pupil likes his tutor and whether the tutor can stimulate the child to want to read, thus enlisting his best efforts; also, whether the teacher can show the child that reading has its own rewards.

The causes outlined so far, however, do not explain all reading disabilities. There remains a sizable number of children who do not learn to read by the methods so far outlined for the reason that the inability to read is primarily the result of emotional disturbance.

The importance of emotional and social maladjustment in the etiology as well as in the results of severe reading disabilities has been given more and more attention in recent years. Gates[1] found emotional disturbances in 75 per cent of a series of children studied, and felt that they were causative in 19 per cent. Robinson[5] found them in 41 per cent of a carefully studied series of 22 and concluded that they were causative in 32 per cent. From her study, Robinson concluded that home and family relationships have not in the past been given the emphasis they merit.

Certainly, the child who goes to school before he has solved the elementary social and emotional problems of home living, who is profoundly disturbed in his parental and sibling relationships, or who is driven by overwhelming anxiety, jealousy or hostility toward children or adults is not likely to be able to apply his attention and abilities to those school tasks, such as reading, which require a certain achievement of emotional and social maturity. Also, the child who must accommodate himself to a school atmosphere which is radically different from the one to which he had become adjusted at home may be severely handicapped in his early tasks of academic achievement.

There are children, too, whose reading disability, upon sufficient study, proves to be quite clearly a neurotic symptom.[6] Occasionally a child is observed whose normal curiosity and aggressiveness in learning was so undermined in later infancy that learning in general and sometimes reading in particular arouses more anxiety and guilt than he can tolerate. In others, failure to read solves a more or less unconscious emotional need, as for example when refusal to read gives the child the attention that he feels he otherwise lacks, or serves as a method of punishing those who, he feels, are overly demanding of him.[4] The best hope of such children is usually to be found in psychotherapy. Remedial measures are usually ineffective until the emotional conflicts have been resolved.

As to the treatment of reading disabilities, two general comments seem indicated from the material so far presented. First, as in all fields of medicine, effective treatment depends upon correct diagnosis. If after two years of schooling a child is failing to learn to read, a comprehensive diagnostic study should be made, all of the possible etiological factors being kept in mind and evaluated. Second, the solution to many reading disabilities is to be found in the gradual development of the mental health facilities of the schools and the psychotherapeutic resources in the community. In many schools and communities such facilities and resources are inadequate to the problem with which the schools are confronted.

Top educators and mental health authorities have become well aware of these inadequacies, but the barriers to effective communication and cooperation between the various disciplines involved are only now beginning to yield to the pressures of the need, and the public has not yet displayed its willingness to support the development of special facilities for the emotionally handicapped as it has for the physically and intellectually handicapped.

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The Schools and the Methods Of Teaching

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THE PROBLEM of the teaching of reading has been a subject of considerable discussion during the last few years. A great deal of this discussion has arisen from studies which show that there is a lack of interest and a lack of ability in reading among our children and youth. It has also been stated that this condition did not seem to exist a generation ago, and that the schools are delinquent in providing an adequate education for our future citizens.

The schools are cognizant of this problem and are highly concerned about it.

What persons who are not professionally concerned with education often do not recognize is that the school problem today is not the same as it was a generation ago. Twenty-five years ago the school was an institution which weeded out the inept and only retained those who could achieve in terms of certain set academic standards. When today we have 98 out of every 100 pupils moving from the eighth grade into the ninth in contrast to former years when only one out of every two moved from the fourth grade into the fifth, we can readily see that the school is now tending to retain the great majority of school age population up until about the age of 16. This means that it has a much wider range of individual differences with which to deal. No longer do the children who formerly failed to learn to read stop school and go to work. They are by law required to remain within the school population.

Another factor that has played an important role in relation to reading is the great increase of stimuli in the child's environment. Radio, movies, television and other visual and auditory ways of obtaining information have appeared and become universal. Thus individuals can obtain information without reading, and as a result for thousands of people reading does not play a role of major importance. The schools are also confronted with the problem of the rapid growth of the school population. This has been particularly true in California where increase in population has resulted in overcrowded classes, double sessions and an inadequate supply of well trained teachers. This has seriously affected the quality of instruction, particularly at the elementary level.

In facing these and other similar problems, the school has attempted to develop a program of read-

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ing that will be beneficial to all the children it is required to serve. In developing this program it has had to be dependent upon the cooperation of the home, the community and the professions including psychology, medicine, social work and nursing. In other words the teacher has become part of a team of individuals who are interested in the reading problem and with whom she is working in order to develop the best possible educational program. No longer is reading considered a purely mechanical learning process where an individual learns a skill and is expected to use this skill in a wide variety of situations. Research has shown that the emotional adjustment and the physical characteristics of the child as well as the attitudes of the parents are particularly important in whether or not the child learns to read adequately. In developing this program the teacher plays a key role. The school administrator also realizes that reading is not a skill that is simply taught in a reading period but is a problem which must be considered by all teachers of all subjects at all levels. He also realizes that, as in the development of any other skill, a certain proportion of his students will have to have specialized and intensive help and that such facilities should be provided through the school and the community.

Here are some of the factors with which the school has concerned itself and in which teachers of our schools have taken leadership:

1. *Development of real understanding of the reading process and of the developmental sequences in learning to read.* Educators have done much research in such problems in an attempt to develop an understanding of what is called "reading readiness." It is well known that not all young children are ready to read at the same chronological age. Developing maturity is a complex operation and before reading is taught a child must be both physically and psychologically prepared to accept the responsibility of this learning problem. This means that not all youngsters necessarily learn to read at the age of 6, which is the common age for entering school. Some will learn to read earlier, some much later. This fact is much misunderstood by parents and others who sometimes do not recognize that reading must sometimes be delayed in order to prevent a child from getting a bad start and thus experiencing frustration during the remaining years of his school life. It is also known that reading development parallels the development of intellectual and social maturity. If in the planning of the school curriculum these factors are carefully considered, many of the reading problems that children have can be successfully prevented.

2. *Study of the methodology in the teaching of reading.* This, of course, has been widely discussed. Some persons advocate that reading should be taught phonetically; others believe that teaching through words and phrases is better; others favor a motor or kinesthetic method. Several other methods have also been suggested. A good teacher who understands the reading processes and is aware of the individual differences that exist among children and youth knows that no one method will be successful with all children. The teacher who knows her children will be able to adapt successfully, in most cases, the method that is most effective for the particular child. It should be remembered that the method of teaching reading is only a means to an end and not an end in itself, and that the method to be used is one that fits the situation at hand.

3. *The recognition of the importance of providing a positive and constructive psychological atmosphere.* If the teaching of reading is successful, the atmosphere in which reading is taught must be positive. Research has shown that the child who is motivated to learn to read and who is interested in reading learns best. If there is no incentive to learn to read, it is highly probable that not much progress will take place. Therefore, the teacher must make reading interesting and at the same time make the child feel that reading is important to him. It is sometimes difficult to show the importance of reading to a child if the home totally lacks an atmosphere which encourages reading and the parents themselves do little reading.

4. *The encouragement of individual face-to-face guidance.* The good teacher will attempt to help individually a child who has a reading problem. The great majority of our teachers are doing this in spite of the fact that they have large classes and long hours. Here is where the teacher has to seek help from other professional groups. She may need the help of a social worker or psychologist on the emotional problems of the child; she may need the help of a physician to alleviate certain physical or emotional difficulties; or she may need the help of reading specialists who can work intensively with the child to help him with both his immediate and long term problems. The good teacher knows when to seek help. She is often most frustrated when she does not find this help available in her school or community.

The alert school system also realizes that the problem of the teaching of reading is one in which much progress is being made; that as a modern school system it must keep abreast of the times in terms of new developments in the teaching of reading. It is only by continuous research in this field that present programs are going to be improved. We must look to the future and not simply rely on what we consider to be sound practices as defined by the present and the past.

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Corrective Measures

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READING is a subtle and complex process—a composite of skills or abilities. It involves a complicated sequence of sensation, perception, comprehension and, finally, utilization. That difficulties should arise in the acquisition of this process is indeed not strange.

Any attempt to prevent or correct such difficulties is necessarily based on careful consideration of possible etiological determinants. Certain causal factors have already been mentioned in this symposium, and others might be included. There is what Bakwin and Eustis term the "specific reading disability," characterized by reversals and mirror reading and frequently associated with confusions in lateral dominance. Certain findings suggest that a slow rate of neuromuscular maturation may be involved in the language disabilities of some children. This slowness may be general or it may reflect itself most conspicuously in certain skills, such as reading. Also mentioned is congenital alexia, a developmental variation comparable to the language dysfunctions found in an aphasic adult.

According to very recent research, retarded visual perceptual development may account for the failure of some children in learning to read. These youngsters, of average or above-average intelligence, appear to lack the ability to discriminate between words and other symbols. Hearing impairments, visual defects, poor general health, inadequate environmental stimuli for interest in reading, inappropriate teaching methods, emotional disturbances—all may serve as deterrents to reading.

Most investigations, however, have pointed to the probability that not one but several or a constellation of related causes produce most reading difficulties. Careful studies have demonstrated no clear-cut factors which appear only in nonreaders and not in good ones. Hence much care must be exercised before concluding that the anomaly exhibited by a nonreader operates as *the* cause of his reading failure.

Perhaps paramount in evaluation of a reading difficulty in the primary grades is the question: Is this child ready to read? Existence of wide differences among children entering school is almost universally recognized. Just as children do not stand up or walk at the same time, or begin to talk at the same age, so children may be slow in developing certain functions involved in reading. Their sensory apparatus, such as is involved in visual-perceptual discriminations, may be late in development; their motor skills may be immature; they may lack the experiences which stimulate a desire to read; they may have difficulty in following directions; they may have poor memory; their attention span may be brief.

Most children are ready to read by 6½ years. However, a substantial number are not ready until 7 or 8 years. In fact, it has been estimated that, in a typical school population, 25 to 30 per cent of the children in the first grade are not ready for the regular reading program. On the other hand, there is the occasional child who is cheerfully and glibly ready to read at 5 years.

Susie may learn early and easily. She may read simple words in kindergarten and read with relative fluency in the first grade. Jimmy may start later—perhaps the second grade, even the beginning of the third—and still learn without difficulty. Again, Mary and Tommy may begin late and progress effortfully. In other words, readiness is not dictated by the calendar or by the grade.

The second basic consideration in the correction of reading problems involves the recognition of and provision for individual differences in reading needs. One group of children with reading difficulties may be the "late maturers." Many of these children, considered retarded readers, will be aided by a program of developmental instruction which adapts to their learning needs, which provides more success than failure, which alleviates the tensions and anxieties regarding their previously low achievement. Essentially such a program is developmental rather than remedial. The child needs appropriate aid to develop skills rather than to remedy defects.

For other children thorough diagnostic studies and special differentiation of techniques will be indicated. Many methods for the teaching of reading have been developed. There are the so-called visual methods, whereby a child learns to recognize the configuration of a word. Phonics entails a system which enables a child to pronounce or identify a word by the sounds. Structural analysis teaches the child to break down the word into smaller units. Kinesthetic methods emphasize tracing and writing the word or phrase.

For answering the frequent query, "Which method is best?", we may turn to evidence from research in the psychology of learning. Detailed experimentation and empirical observations over the past 20 years have pointed to the conclusion that there probably is more than one kind of learning. Different kinds of learning may take place simultaneously or at different times. Learning may occur according to both behavioristic and gestalt principles. More-

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over, individuals differ in the learning cues to which they respond most readily.

Applied to reading, then, it is apparent that a variety of learning methods provides a child with a variety of tools for recognizing words. He needs different methods of attack to serve different types of words. For example, phonics will help him on words like "cat" and "man" but will leave him stranded when he is confronted by "though" or "through." Structural analysis will help him to find the "in" in "winter" but will be misleading when he finds the "me" in "come."

Thus it would appear ill-advised to contrapose phonics and flash cards, or a kinesthetic method and a phonetic method. No one technique is infallible. Probably no matter what approach or methods are used, children will learn at differing rates and in varying degrees. Repeatedly noted is the fact that the child who can combine several methods of attack on an unfamiliar word, is usually found to be the most successful reader.

Again, as was suggested previously, individual children vary in their learning needs. Some respond most effectively to auditory cues; for them, phonics will be most useful. Others respond to visual cues; for them, visual recognition is particularly valuable; for still others a kinesthetic method is needed.

It appears that there is no prefabricated plan or panacea for all reading problems. The same prescription cannot be given to all children.

The particular learning pattern which is most relevant for a given child may be indicated by detailed evaluation of that child's particular strengths and weaknesses. Diagnostic reading tests may reveal the trouble-spots in his reading—be it his rate of reading, vocabulary level, his techniques of word recognition and analysis, his visual memory, his memory for orientation of forms, auditory memory, oculomotor control and attention. Moreover, his behavior and attitudes during the tests may reveal habitual work patterns and emotional reactions toward the reading.

Other considerations in a program for a child with reading difficulties are the attitudes of the adults in his environment. The child should not be labeled a nonreader. It is unfortunate indeed if he hears himself described often as "the action-type, not the reading type." He is thus presented with a picture of himself as an individual who cannot or will not read. With such a label he may well abandon all effort. He could hardly be expected to show an interest in reading in the face of such apparently unanimous public opinion, and he may become acquiescent to his status as a reading failure. He should feel that he is potentially a reader, if not actually one at the moment.

Sometimes the acquisition of some reading ability, albeit a humble one, may bolster the child's previously tattered ego and may in itself reduce some of the emotional tensions associated with reading.

As a corollary, there are those occasional children whose nonreading has become a source of satisfaction—a secondary gain, so to speak, which they may be reluctant to relinquish. Perhaps these children are receiving more concern and attention in their distinctive status as nonreaders than they would were they to become part of the "undistinguished" reading populace. One such child — a clinic-wise ten-year-old boy—was brought for diagnostic reading tests, after having had a succession of reading tutors. He gazed challengingly at the examiner and stated complacently, "None of the others could teach me. What's your pitch?"

One final consideration in the correction of reading problems involves the provision of sufficient motivation or desire to read. In a culture which provides so many competing media, reading materials must have intrinsic interest for the child. Years ago one basic reader constituted the complete reading program of most schools. "The New England Primer," which in its day was advertised as the book which "taught millions to read and not one to sin," and the McGuffey readers provided the almost exclusive reading materials for children of those years. Today in a culture of space patrols and supermen, reading materials need to include an infinite variety of stimulating information.

The basic concerns in the treatment of reading difficulties, then, are the recognition of individual differences and adapting instruction to the child's abilities. Early identification of those children manifesting extreme difficulty in learning to read and a properly implemented program could serve as the most effective deterrent to reading disabilities in children.

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Summary

Dr. Jampolsky: In summarizing the views of the panel members certain common denominators stand out. The problem is not a new one, but rather an old one with poor public education and little progress over a period of years. The actual increase in numbers of poor readers, real or apparent, is difficult to establish, although it is agreed that it is probably real. It appears that the demands are greater today, that a higher value is placed upon reading skills, that reading skill is more necessary in the learning process and in society, and that failure to read well is now more apparent than once it was, since more students remain in school longer now.

Parents sometimes expect as a goal that their child will always be above the average. The problem of the poor reader at times becomes a problem of the parent.

It has been noted that there are different kinds of reading disabilities. There is a small group of poor readers with so-called specific disability with certain established characteristics, and perhaps for this group there is a more specific management. The larger number of poor readers form a complex group and may be characterized by a slow rate of reading, low comprehension, or slowness to learn. The reading disability may be a part of a learning disability. Since there are different kinds of poor readers it follows that there are different causes and different treatment.

The panel members are unanimous that there are multiple causes and contributing factors. Retarded readers may develop a complex picture making it unwise to treat a reading disability without proper knowledge of other obstacles. There are no pat solutions. There is no one method of prevention or treatment.

"Reading readiness" has been mentioned by more than one of the panel members. Some children are late in maturing. If one delays the teaching of reading skills for these students, others will become bored and distracted. There must be proper attention to individual differences and there may be an optimal time for the teaching of reading in school. The importance of proper motivation in the teaching of reading skills has been stressed. Both the school and the home environment should be directed toward revealing the importance of reading skills. Sometimes children will learn to read despite the teacher or teaching method and some will fail.

All are agreed that the children must have a method of word attack, some system by which they may learn new and unfamiliar words. Any single method of teaching reading applied to all children will have the result that some children will fail. A good teacher recognizes individual differences and, with multiple tools for the teaching of reading, adapts them to the needs of the children. It is realized that some teachers, like some physicians, have a keener insight than others into such problems. It is not so simple a problem that it can be solved by going back to the teaching methods of 20 years ago.

A good teacher will recognize when the help of trained personnel is needed. How to get this help poses practical problems. Lest it appear that the views expressed are needlessly complex, certain practical recommendations may be made from the degree of knowledge and area of agreements. The panel members hope to simulate Grecian wisdom by bearing not only blossoms, but some fruit. It is recommended that the teacher be able to seek help from school services. The teacher is concerned not only with reading problems but with speech, hearing and others. It is desirable that one central person, preferably with psychological training, be available for evaluation of the particular problem. If the presence of a physical impediment is suspected, the child should be referred to his own physician or his own medical facility for determination of the specialized medical services that may be needed. After proper evaluation and diagnosis, proper treatment may be instituted. Early diagnosis is important lest needless complications arise.

It will be noted that the ophthalmologist does not believe that the poor reader is primarily an ophthalmological problem. Only occasionally are specific problems found to be the cause of the reading disability. Ophthalmologists are aware of patients seeking ophthalmological care because of missed diagnosis of the reading problem, and while placing due value on visual efficiency, should not overrate it. Children with 20/400 vision may learn to read if they possess a 20/20 brain. But 20/20 vision in the presence of a 20/400 brain may lead to obvious problems. Cerebral astigmatism appears to be more important than the ocular variety.

The panel members recognize that the availability of specialized services of even a central figure with whom the teacher may consult may present practical difficulties. The solution may differ for rural and urban areas because of problems of finance and personnel. Ideals must be compromised with practicability.

The goal is to make it easier for all children to learn to read and to remove all possible obstacles as long as it is practical to do so; and thus avoid the pitfalls that make such panel discussions as this necessary.

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The Electrocardiogram in Primary Coccidioidomycosis

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• *Because in some cases of primary pulmonary coccidioidomycosis the principal complaint is pain in the chest resembling that of angina pectoris or coronary occlusion, the electrocardiograms of 20 cases of primary pulmonary coccidioidomycosis were studied, early in the illness and after recovery. In fifteen cases, no electrocardiographic abnormalities were noted. In five cases, findings during the acute illness differed from those after recovery. The changes noted were inversion of T waves and low voltages during the illness, reverting to upright T waves and normal amplitudes after recovery. In none of the cases studied were abnormalities found which might be confused with the electrocardiographic findings in angina pectoris or coronary artery occlusion.*

IN MANY CASES pain in the chest is the principal complaint of patients with primary pulmonary coccidioidomycosis. Occasionally the pain is of pleuritic type, but frequently it is not definitely correlated with respiration, and in such latter cases it is sometimes mistaken for the pain of angina pectoris or that of coronary artery occlusion. The present study was undertaken after two patients who, owing to a history of chest pain on exertion, were thought to have angina pectoris, later developed the clinical and laboratory signs of primary pulmonary coccidioidomycosis. The electrocardiograms of patients having proved cases of primary pulmonary coccidioidomycosis were studied to determine whether changes occurred in them during the acute phase of the illness, and, if so, whether the changes were such that they might be confused with those due to heart disease.

REVIEW OF RELATED STUDIES

It has been known for many years that acute infectious diseases produce electrocardiographic abnormalities which usually abate when the patients recover from the diseases. Causes of these changes are myocarditis, fever, peripheral circulatory insufficiency, anemia, anoxia, poor nutrition, electrolyte imbalance, mediastinal shift and pericarditis. Such effects of common infectious diseases on the cardiovascular system have been well reviewed by Fine.[3] Because of the proximity of the heart to the site of the pathological process, cardiologists have been especially interested in pulmonary diseases; and of these diseases the most thoroughly studied has been pulmonary tuberculosis. Bjorkman[1] studied the standard limb leads in large groups of tuberculous and nontuberculous patients and noted that the tuberculous patients had slightly lower P and T waves in leads I and II than did the control group. Fox, Berger, and Meidt[4] studied the abnormal electrocardiograms of 100 patients with pulmonary tuberculosis. Of these, only four were considered to be abnormal due to myocardial damage, and the remaining 96 had changes which the authors felt were due to rotation of the heart and mediastinal shift as a result of the pulmonary pathological changes. ST segment deviations from the isoelectric line in all unipolar leads, inverted P and T waves in AVL, and T wave changes in the precordial leads were all attributed to displacement or rotation of the heart more frequently than to myocarditis. The investigators made a plea for caution in attributing changes of that kind in patients with pulmonary diseases to cardiac origin.

So far as could be determined no previous study has been made of the electrocardiogram in primary pulmonary coccidioidomycosis. Larson and Scherb[5] reported three cases of coccidioidal pericarditis, in one of which the electrocardiographic findings were typical of pericarditis, in one compatible with the diagnosis, and in one nonspecific. The abnormality noted was primarily elevation of the ST segment. In several studies[2, 6] of disseminated coccidioidomycosis attention was given to the myocardial lesions.

METHOD

Twenty unselected patients with early primary pulmonary coccidioidomycosis were studied. They were observed in private practice or in the outpatient clinic of the Tulare County General Hospital. The patients were judged to have coccidioidomycosis if erythema nodosum developed shortly

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From the Medical Service, Tulare County General Hospital.
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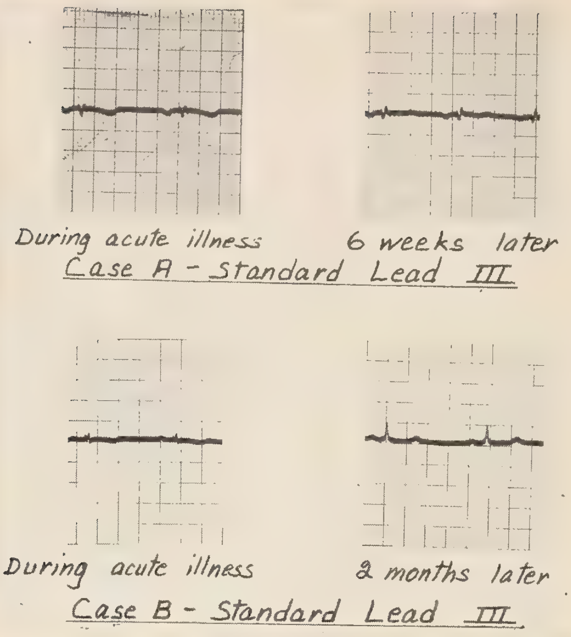

Figure 1.—(Upper charts) Case A, Standard Lead III: *Left,* during acute illness; *right,* six weeks later. (Lower charts) Case B, Standard Lead III: *Left,* during acute illness; *right,* two months later.

after the onset of the illness or if the results of precipitin and complement fixation tests were characteristic of the disease. Serologic studies were carried out in all cases. In several cases of mild infection, erythema nodosum was present but antibodies did not develop. Experience has shown that in an area of such high endemic incidence as the southern San Joaquin Valley, erythema nodosum may safely be considered to be due to coccidioidomycosis when the clinical findings are compatible with this diagnosis.

An electrocardiogram, including the unipolar limb leads and six chest leads, was obtained on each patient on the first visit if primary pulmonary coccidioidomycosis was suspected. If the disease was subsequently proved to be present, a second electrocardiogram was obtained after recovery had occurred. The patient was considered to be recovered after the results of serologic tests and x-ray films of the chest were negative, the sedimentation rate and the temperature normal, erythema nodosum gone, and the patient asymptomatic. Patients in whom disseminated or progressive coccidioidomycosis developed were not included in the study.

Treatment for the disease consisted of bed rest until the fever disappeared and use of acetylsalicylic acid for relief of headache and joint pains. After the febrile period, the patients were advised to rest and refrain from work until the sedimentation rate became normal, but not all complied.

The series was made up of nine male and eleven female patients between the ages of four and 45 years. Seven of the patients were of Mexican ancestry, one was an American Indian, one a Negro and the remainder of native white stock. Most of the adults were agricultural workers who were exposed to dust.

RESULTS AND DISCUSSION

The electrocardiogram remained essentially normal in 15 of the cases, and in five there were significant changes. The types of changes occurring after the patient had recovered from the acute phase of illness were:

1. Previously inverted, flat or diphasic T waves became upright. This change (illustrated in Figure 1, Cases A and B) was noted in four cases.
2. Low voltages increased in amplitude in two cases (see Figure 1, Case B).

In one case, both of the changes were noted.

The presence of electrocardiographic abnormalities did not seem to be correlated with severity of illness, age, sex or racial origin. It was not possible to determine whether the changes were due to cardiac or to extracardiac causes. However, it does not seem likely that they were due to factors unconnected with the illness.

The series of cases is not large enough to warrant statistical treatment of the results or detailed measurements of the components of the electrocardiogram. In general, however, the observations demonstrated that in primary pulmonary coccidioidomycosis, the electrocardiogram will show either no noteworthy changes or changes that are not similar to those of a myocardial infarction or acute pericarditis. The abnormalities that occur after an exercise test in patients having the anginal syndrome are not duplicated in primary coccidioidomycosis. Therefore the electrocardiogram may be useful in differentiating these disease entities in some cases in which pain in the chest is the chief complaint.

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CASE REPORTS

Chondromatous Hamartoma Treated by Transpleural Bronchotomy

Report of a Case with Review of the Literature

JOHN S. CHAMBERS, M.D., and
ROY S. AVERILL, M.D., San Diego

TRANSPLEURAL BRONCHOTOMY was first successfully used for removal of a foreign body in 1904[10] and there is record of ten other cases since that time in which the operation was successfully carried out for that purpose.[4, 5, 11, 18-20]

The same operation was first used for removal of an endobronchial tumor in 1932 by Bigger.[1] Since then it has been used in at least seven patients (Table 1)[2, 7-9, 12, 13] excluding transpleural trachectomy and tracheoplasty operations, which are becoming increasingly common.

REPORT OF A CASE

The following is a report of a patient with a pedunculated endobronchial chondromatous hamartoma treated by bronchotomy:

A 48-year-old man employed as a band saw operator was admitted to the Chula Vista Hospital February 5, 1952, with complaint of cough productive of yellowish sputum streaked with blood, chills and fever of two weeks' duration, shortness of breath and wheeze in the left side of the chest progressive over a period of two years. He had been a heavy smoker for 30 years, had had a chronic cough and pneumonia as a child and had lived in an area in which coccidioidomycosis is endemic.

On physical examination the patient appeared to be acutely ill. Slight cyanosis was noted. The temperature was 101° F. Breath sounds were diminished over the left side of the chest both anteriorly and posteriorly and wheezes and rhonchi were heard bilaterally. Slight clubbing of the fingers was also noted.

An x-ray film of the chest on the day of admittance (Figure 1) showed infiltration in the lingula and anterior segment of the left upper lobe. It was almost completely subsided five days later.

The patient was treated with streptomycin and aureomycin and was discharged February 18, 1952, afebrile but with little change in auscultatory abnormalities in the chest. The diagnosis was primary atypical pneumonia.

Five days later the patient was readmitted with recurrence of former symptoms and of roentgenographic abnormalities in the chest. After therapy with aureomycin he was discharged as improved, with x-ray changes again partially subsided, on March 9, 1952.

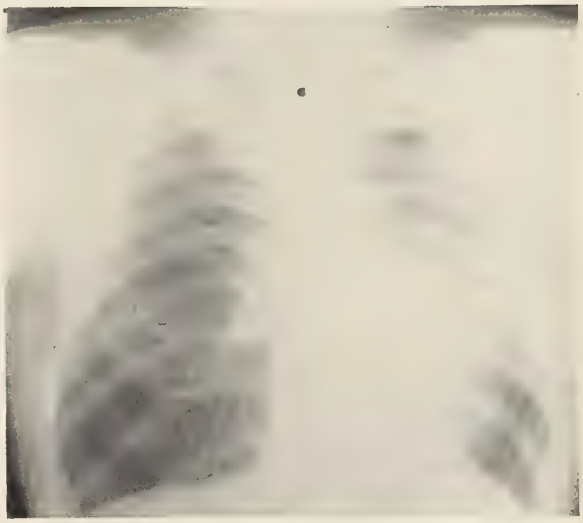

Figure 1.—Preoperative film taken February 5, 1952.

He was admitted a third time on March 14 because of recurrent symptoms. Upon bronchoscopic examination "an overgrowth of epithelium measuring almost a centimeter in greatest diameter, partially occluding both upper and lower lobe orifices, and free of ulceration," was found. Several biopsy specimens were taken from this mass, as well as secretions for cell block study. The bronchoscopic impression was: "Probable carcinoma involving juncture of left upper and lower lobe bronchi." The biopsy was reported showing "mucosa composed of well differentiated epithelial cells, the underlying submucosa showing a mild diffuse lymphocytic and plasmacytic infiltration." There was no evidence of malignant change in the biopsy specimens or in the cell block of secretions. In view of the long history of wheezing, shortness of breath and expectoration, the patient was considered a poor risk for pneumonectomy, and laminagrams of the left hilum for better visualization of that area were suggested. The patient refused the additional roentgen studies, however, and was discharged March 24 with a diagnosis of suspected left bronchogenic carcinoma, pulmonary emphysema and probable bilateral bronchiectasis.

TABLE 1.—*Bronchotomy for tumors*

Reported by	Tumor	Location	Sex and Age	Bronchoscopy	Date of Bronchotomy	Result
Bigger	Carcinoma basal cell	Lt. main bronchus	M 14	Narrowing, no biopsy	3-1-32	Died 3 days after secondary pneumonectomy
Eloesser	Carcinoma relatively benign	Lt. lower lobe bronchus	F 33	No tumor visible	10-2-39	Well 7 months later
Goldman	Adenoma	Lt. main bronchus, intramural, no pedicle	F 31	Removal 7 years prior to bronchotomy	3-8-46	Well 3 months later
Langston and Fox	Fibroma	Lt. main bronchus, pedicle dorsal branch bronchus	M 26	Biopsy	12-24-46	Well
Goldman	Adenoma with metastases	Trachea and left main bronchus	M 58	Removal over 6-year period	1947	Died of metastases 2 months postoperatively
Brown	Granular cell myoblastoma	Mouth of lt. bronchus, lower lobe	M 48	Lobulated mass	12-6-48	Well 9 months later
Goldman	Adenoma	Lt. main bronchus	F 14	Biopsy	1949	Living and well 2 years postoperatively
Goldman	Adenoma	Rt. main bronchus	F 45	Five-years before with removal of tumor	1949	Living and well 18 months postoperatively
Authors	Hamartoma (Chondromatous)	Lt. main bronchus	M 49	With biopsy twice; diagnosis not made till surgery	6-24-52	Well 24 months later

The patient refused further observation until recurrence of acute symptoms necessitated readmission on June 9, 1952. Bronchoscopic observations at that time were essentially the same as before except that the mass seen previously seemed to be somewhat movable and a pedunculated tumor was thought of. Biopsy again was negative for malignant disease. Planigrams on June 17 showed "an ovoid mass measuring 3 x 0.5 cm. almost completely occluding the lower end of the left main bronchus."

On June 24 operation was carried out. With the patient face down, the left pleural cavity was entered through the fifth intercostal space. The posterior aspect of the lung root was freed, several branches of the vagus nerve being divided and the pulmonary artery encircled by a Penrose drain for traction. The main bronchus was then isolated and a Penrose drain was passed around it. A hard movable tumor mass was palpated in the main stem bronchus and the membranous portion opened longitudinally for a distance of 2.5 cm. The smooth resilient, slightly lobulated tumor mass was readily visualized and grasped with a curved clamp and drawn through the bronchotomy incision. It was attached by means of a narrow pedicle 1 cm. in length to the juncture of the upper and lower lobe bronchi on the anterior aspect of the carina. The pedicle was clamped with a small curved hemostat at its juncture with the carina and amputated. The stump of the pedicle was cauterized with a silver nitrate stick and the incision closed with interrupted 0000 silk sutures in one layer. A pleural covering was approximated over the incision and the wall of the chest was closed by means of catgut pericostal sutures and interrupted silk, two intercostal catheters attached to water trap bottles being inserted prior to closure. The patient withstood the procedure well.

Postoperatively the patient did well and noted that he was able to "breathe better than in many months." The intercostal tubes were removed on the third postoperative day and the patient was discharged on July 11 with good breath sounds bilaterally and films of the chest showing only postoperative pleural reaction. Upon examination a year and a half later the patient was well and said he had been well in the interim (see Figure 3).

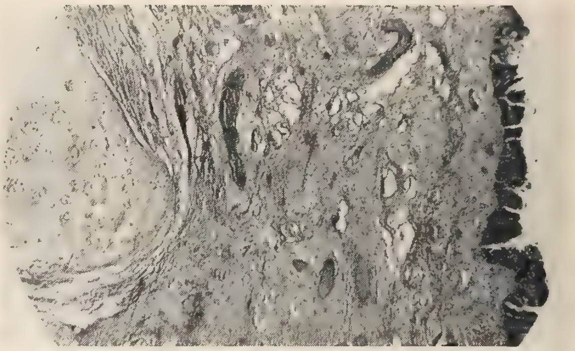

Figure 2.—Photomicrograph of section of excised tumor.

PATHOLOGIST'S REPORT

The tumor was described as follows: "The specimen was a tumor 12 x 14 mm., having a smooth surface covered by mucous membrane. There was a pedicle a few millimeters in length protruding from one area of the tumor. A mid-section showed a mass of shiny white nodules, ranging from 6 x 2 mm. to 1 x 3 mm. in diameter, with a dark fibrous tissue surrounding them. Microscopically (Figure 2) the growth was observed to be covered by a dark-staining pseudostratified epithelium. The nodules were hyaline cartilage, with flattened cells in most of the periphery. The connective tissue was quite vascular and, in general, cellular with scattered lymphocytes and plasma cells. Some vessels had round cell collars and a few fat cells were present. The varied cell types of normally found elements, with cartilage predominating, made the diagnosis chondromatous hamartoma."

TABLE 2.*—*Intrabronchial chondromatous hamartomas*

Reported by	Year	Age and Sex	Bronchoscopy	Site	Treatment
Chiari	1883	68 F	....	Right	....
Siegert	1892	61 F	....	Left	....
Spuler	1902	? ?	....	Left	....
Eicken	1907	41 F	Visualized	Left	Excision via bronchoscope
Blecher	1910	21 M	....	Left	....
Spiess	1910	47 F	Visualized	Right	Excision via bronchoscope
Caussade, Surmont and Lacapere	1925	53 M	....	Right	....
Paul	1930	69 M	....	Left	....
Moore	1932	68 M	....	Right	....
Gebauer	1938	44 M	Visualized	Right	Excision via bronchoscope
Davidson	1941	66 M	Visualized	Right	Excision via bronchoscope
Ulrich	1941	57 M	Visualized	Right	Excision via bronchoscope
Postlethwait, Hagerty and Trent	1948	57 M	Visualized	Left	Lobectomy
Carlson and Kaier	1950	59 M	Visualized	Left	Bronchotomy
Effler and Scheid	1951	56 M	Visualized	Left	Pneumonectomy
Rubin and Berkman	1952	68 M	....	Right	....
Moersch, Donoghue and McDonald	1952	50 F	Visualized	Right	Lobectomy
Ibid		46 M	Visualized	Left	Excision via bronchoscope
Ibid		61 F	Visualized	Right	Excision via bronchoscope
Chambers and Averill		49 M	Visualized	Left	Bronchotomy

* Modified from Postlethwait and co-workers.[16]

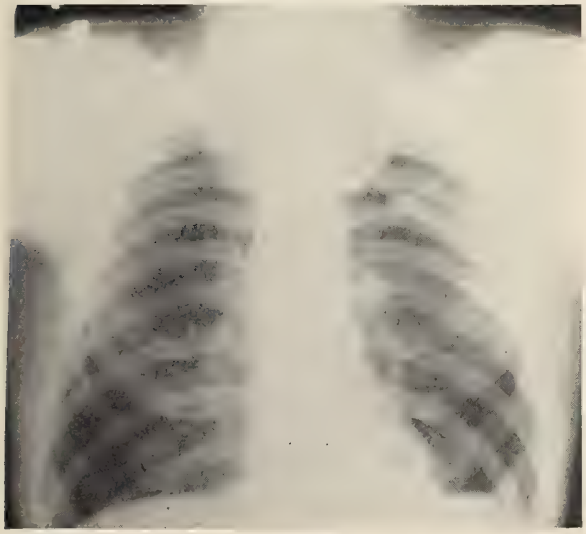

Figure 3.—Film of chest a year and a half after operation.

DISCUSSION

About 100 cases of hamartoma of the lung had been reported by 1945, when McDonald, Harrington and Clagett[14] reviewed this condition. Not included in their report were endobronchial tumors of similar appearance. In 1948, Postlethwait and co-workers[16] reported twelve such endobronchial cases and added a report of a case they had observed. Since then six additional cases of endobronchial hamartoma have been reported.[3, 6, 15, 17] The data on the 19 cases are summarized in Table 2.

The symptoms, in the cases in which symptoms were reported, were those of bronchial obstruction with distal suppuration. In order of frequency the symptoms were: cough, purulent sputum, dyspnea, hemoptysis and wheeze. The diagnosis was made at autopsy in eight cases, by bronchoscopic examination in eight and presumably at operation in three cases.

The term *hamartoma* has been used to apply to growths in which an abnormal distribution of normally found components is present. Since the predominant tissue in these tumors is cartilage, the term *chondromatous hamartoma* seems appropriate, although *chondroma* was used in the early references.

No definitive treatment was used in eight patients. Excision through a bronchoscope was used in seven patients with recovery in each case. Pulmonary resection was done in three patients—one pneumonectomy and two lobectomies—with recovery. In one patient,[3] the finding of a chondrohamartoma was incidental in that bronchoscopic examination for carcinoma of the right bronchus was performed and the benign tumor was observed in the left main stem bronchus. The only mention of the treatment in this case was in a table in the article which stated, "Bronchotomy with excision of hamartoma. The patient died with an inoperable carcinoma of the right lung." With this exception the case reported herein is unique in the treatment of the disease.

SUMMARY

A case of pedunculated endobronchial chondromatous hamartoma is reported. Treatment consisted of transpleural bronchotomy and excision of the tumor. A review of the literature on bronchotomy and hamartomas is presented.

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Pseudoxanthoma Elasticum with Gastrointestinal Bleeding

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PSEUDOXANTHOMA ELASTICUM is a disease of elastic tissue involving the skin, Bruch's elastic membrane of the eye, and the arteries. It was named by a dermatologist, Darier,[3] in 1896 because of the superficial resemblance of the lesions to xanthomata, and because the elastic tissue of the cutis in this disease is clumped and frayed.

Recently a patient was observed on the medical ward at Stanford Hospital with pseudoxanthoma elasticum associated with intestinal bleeding.

CASE REPORT

The patient, a 17-year-old white American school girl, was well until the age of ten years, when she became pale and easily fatigued. A physician then found that she had pronounced anemia. She was given a transfusion of whole blood at that time, as well as liver and iron therapy. She felt well until, at the age of 13, she had several tarry stools over a period of one month. After profuse hematemesis, one unit of blood was infused and the patient was referred to Stanford Hospital on February 8, 1951.

The parents and two younger siblings were alive and well, had no skin disease and no hemorrhagic complaint or other chronic disorders. One sibling was stillborn; another died at the age of three months of "choking" (no more is known about the cause of death).

The patient had had measles at the age of five years and a simple fracture of the right radius when she was nine. She had worn glasses since the age of seven, and when she was nine years of age had a successful surgical repair of right lateral strabismus.

On physical examination the patient was observed to be a well-developed, well-nourished adolescent with moderate paleness of the skin and of the mucous membranes. She had microcytic, hypochromic anemia. The hemoglobin content was 7.0 gm. per cc. of blood. A test of the stool was positive for occult blood. In x-ray examination of the upper gastrointestinal tract no definite abnormality was noted but there was suggestion that there might be an intramural tumor of the third portion of the duodenum.

The patient reentered the hospital 18 days later. A transfusion of two units of blood was given, and on March 3, 1951, exploratory laparotomy was performed. There were no visible abnormalities of the abdominal or pelvic viscera. The transverse duodenum was opened and there were no palpable or visible defects of the mucosa. The appendix and a liver biopsy were microscopically normal. The patient was discharged without diagnosis.

There was no further gross bleeding for almost a year, but the patient entered Stanford Hospital for the third time on February 2, 1952, after vomiting two cups of bright red blood and passing a tarry stool. An intern observed "irregular areas of depigmentation over both arms and shoulders." Several clotting studies were done: platelets numbered 330,000 per cubic mm.; coagulation time (Lee-White) was 8 minutes, 30 seconds; the result of a Rumpel-Leede test for capillary fragility was negative. Bleeding time by the Duke method was 5 minutes, 30 seconds; this was apparently not judged abnormal at the time and was not repeated. Gastrointestinal examination by x-ray showed a normal duodenum, with some question this time about the esophagus. Esophagoscopic and gastroscopic examinations were done and no abnormalities

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Submitted March 8, 1955.

were observed. A transfusion of one unit of blood was given and the patient was discharged again without diagnosis.

Six months later a bout of hematemesis was treated by a physician outside the hospital. The patient was fairly well throughout 1953, but from May until August, 1954, she became increasingly anemic as the result of several episodes of hematemesis and melena. At times the sputum was blood-streaked but the question of whether the bleeding was gastrointestinal or from the respiratory tract was not fully decided. The patient continued to grow anemic despite four transfusions and she entered Stanford Hospital for the fourth time on August 17, 1954.

It was observed on the medical service that a peculiar change had taken place in the texture of the skin of the neck and axillae, and a dermatological consultation was requested. At this time the patient said that the lesions had been present ever since the first bout of hematemesis at the age of 13.

On examination of the skin, bilaterally symmetrical lesions limited to the neck, axillary folds, and antecubital spaces were noted. The lesions consisted of rows of flat-topped papules 1 to 2 mm. in diameter, the color of normal skin, arranged along natural lines of skin folds. The skin felt rough and was rather loose and easily stretched. The fundi were examined and typical angioid streaks about the discs were noted. Although the patient continued to complain of easy fatigability and aching in the legs after exertion, there was no significant diminution in pedal pulses, nor was calcification of the vessels of the legs observed on x-ray examination.

The clinical diagnosis of pseudoxanthoma elasticum was confirmed by biopsy of a specimen of skin. Elastic Van Gieson stain showed clumped, thickened, broken and frayed elastic tissue throughout the entire cutis, more in the midcutis. The Von Kossa stain for calcium showed a heavy deposit of calcium in the region of altered elastic tissue.

Again, the site of bleeding was not determined. No abnormalities were noted in x-ray studies of the chest, in a bronchogram or at bronchoscopic examination. Roentgen studies of the gastrointestinal tract were again not helpful. A bland diet was prescribed and the patient was discharged in the care of a private physician.

DISCUSSION

Pseudoxanthoma elasticum is an uncommon disease. Since it was first described by Balzer[1] in 1884, fewer than 200 cases have been reported. The pathological changes were considered to be limited to the skin until 1929, when Gronblad[5] and Strandberg[8] separately observed the association of pseudoxanthoma with angioid streaks of the fundus. The most widely accepted theory of the cause of angioid streaks is that they are due to degeneration of Bruch's elastic membrane of the choroid.[4] In 1938, autopsy material was presented to show that in pseudoxanthoma there may be widespread degeneration of elastic tissue in any of the larger arteries,[7, 10] and in 1944 Carlborg[2] reported that patients with this disease have a high incidence of demonstrably diminished peripheral arterial pulsation and calcified peripheral vessels. These changes were attributed to degeneration of elastic tissue and altered pulse waves rather than to obstruction of arterial lumena. An increased familial incidence has been observed. Revell and Carey recently reviewed the autopsy observations and the literature.[9]

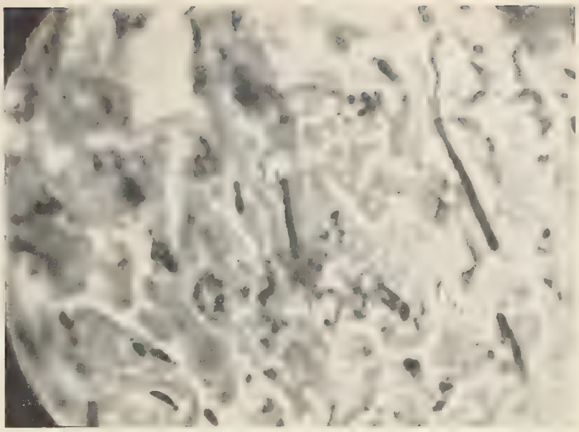
Figure 1.—Midcutis. Elastic Van Gieson stain (×440). Pseudoxanthoma elasticum. The dark-staining elastic tissue is thickened, clumped, frayed, and broken.

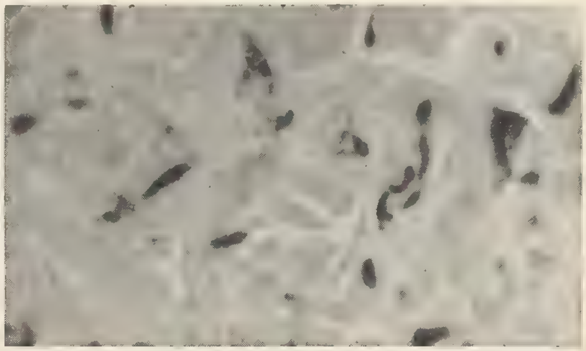
Figure 2.—Midcutis. Von Kossa stain (×440). Pseudoxanthoma elasticum. Dark-staining calcium is deposited within degenerated elastic tissue.

Eight cases have been reported in which gastrointestinal bleeding was associated with pseudoxanthoma. There are reports of autopsy material in three of these.

Prick[7] reported the case of a 48-year-old woman with skin lesions and angioid streaks who died following hematemesis and cerebral hemorrhage. Tortuous and thickened vessels causing impressions into the jejunum and ileum were noted at autopsy. The vessels contained considerable degenerated elastic tissue.

A case reported by Law,[6] that of a 17-year-old boy with skin lesions and angioid streaks, hematemesis occurred repeatedly. At laparotomy, the gastric mucosa showed "evidence of recent hemorrhages with many dilated vessels in the submucosa." An acute gastric ulcer was noted, and gastrojejunostomy was performed. A month later the patient died and at autopsy a "leak on the anterior aspect of the proximal gastrojejunal junction" was noted.

Carlborg[2] reported autopsy observations in the case of a patient with skin lesions and angioid streaks who died following hematemesis at a hospital where pseudoxanthoma was not recognized. The pathologist's report included pulmonary tuberculosis and cirrhosis of the liver with esophageal varices. No elastic tissue stains were done.

Revell and Carey,[9] and Wolff and co-workers[11] reported three recent cases, the patients varying in age from 9 to 29 years, in which repeated bouts of gastrointestinal bleeding were treated successfully with transfusions.

SUMMARY

A case of gastrointestinal bleeding, presumably due to pseudoxanthoma elasticum, is reported. The patient had had chronic and acute loss of blood from the gastrointestinal tract from the age of 10 years until the age of 17 years, when the diagnosis was made. A brief review of other cases of gastrointestinal bleeding in pseudoxanthoma elasticum is presented.

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EDITORIAL

Back-Door Socialization

If any physician thinks that the social planners have given up their attempts to socialize medicine, he should take heed of the current attempt to force through the Congress a long series of amendments to the Social Security Act. Now labeled HR 7225, this set of amendments very slyly opens the door to socialized medicine and virtually begs for further amendments and additions which would make that goal come constantly closer.

Progress of this measure through the committees of Congress and on the floor of the House of Representatives shows that the socializing forces in Washington have not only a large reserve of power but the political acumen to put that power to work.

HR 7225 is the brain child of Representative Jere Cooper, Tennessee Democrat who is chairman of the House Ways and Means Committee. Typical of the power he has shown in promoting this amendment to the Social Security Act is the fact that his own committee reported the bill out favorably before the measure had even been introduced or given an official number.

To detail the various amendments included in HR 7225 would require a large volume. Suffice it to say that the principal interests of physicians in the bill lie in two parts. First is in the inclusion under the Social Security Act of self-employed persons in the fields of, among others, dentistry, law, optometry and veterinary medicine. Second is the establishment in the law of a brand new program of payments from the Social Security Fund of benefits to compensate for total and permanent disability.

On the first of these two points, medicine has made itself heard. Physicians have *not* been included in the list of self-employed persons who would, if this measure passed, be required, willy-nilly, to contribute to the Social Security Fund. For this exclusion, credit must go to a few individuals who have steadfastly fought for recognition of personal retirement programs which could be built upon income tax deductions during the earning years and income tax payments on future benefits when earning capacity declines.

As to the matter of payment of benefits for total and permanent disability, medicine has every reason to fear in it the inauguration of a system of socialized medicine. If such payments are to be made, the applicants will certainly require medical certification of disability. Enter the physician. Also, enter the chiropractor, faith healer and others already recognized by those few state governments which have thus far experimented with payments of this character.

Once the physician is in the act, in the role of a certifying agent, he comes under the regulations and proscriptions which government always sets up under its programs. When he becomes accustomed to that regime, why not add a few more duties in the way of therapy? Legislation which can be rammed through one-half of our Congress in the manner this bill has progressed offers every inducement for added governmental invasion into the field of private initiative.

As an example of governmental medicine, one section of HR 7225 requires that beneficiaries of the total and permanent disability program must submit themselves to rehabilitation. Who will supply the care under that requirement? Who will name the conditions, fees, and other stipulations of a nationwide rehabilitation program? A glance at our present rehabilitation and crippled children's programs will give the answer: the physicians have no part to play except to provide the medical service needed, under terms and conditions laid down by the social planners.

The political acumen referred to above is amply demonstrated in the methods used by the author of the bill to shove it through the Congress. The bill in dream form was passed out of the Ways and Means Committee even before it had been drafted or numbered. The vote was strictly on party lines. Moved into the Rules Committee, by which time it had been given a number, HR 7225 was again passed out favorably, again on a party line vote. Meanwhile, *no public hearings were held.* No expert advice was asked. No proponents or opponents outside the two communities had a chance to be heard. No actuarial advice was sought; no financial advice.

These two committees handed the House of Representatives a new measure which will cost an estimated two billion dollars annually. Of course, the money comes from the taxpayers in the form of higher social security taxes for both employer and employee. When and if further medical therapy is added, these taxes will again go up.

On the floor of the House of Representatives, HR 7225, under a suspension of the rules, was limited to 40 minutes' debate. This is popularly known as the "gag rule." On a two billion dollar measure, affecting millions of people, after only 40 minutes of debate, the bill was passed by a vote of 372 to 31. The strategy here was to put every Congressman in the spot where, with elections coming up in 1956, he would be too embarrassed to vote against a new extension of the give-away program. It even appears that this same strategy may have pervaded the White House, where it might give pause to a veto when and if the bill goes through the Senate.

At this writing there seems some hope that the Senate will not act favorably on HR 7225 during this session of Congress. But just wait for the next session. Back will come HR 7225, with a few new clauses and a new number. Will the Senate still have the courage to step in and stop this further incursion into our personal lives and fortunes? Or will the proponents of this legislation have gathered enough added strength to push their bill through both houses of Congress?

The medical profession will do well to keep a watchful eye on this back-door approach to socialized medicine. It is obvious that the planners for tomorrow are still at work and as full of cunning as ever.

LETTERS to the Editor . . .

Chronic Prostatitis

THIS IS A LETTER to the Editor if such a forum exists. The article published in June, 1955, of CALIFORNIA MEDICINE entitled "Chronic Prostatitis: A Psychosexual Approach," by David Rosenbloom, M.D., is in my opinion so misleading that I cannot refrain from taking issue with the ideas that are expressed. At the outset I will admit that part of the problem is one of semantics since the misconceptions which are fostered in this article are often the result of terminology and furthermore I agree with many of the observations which the author made regarding symptomatology and objective findings in the group of patients he was talking about. The real trouble lies in the label which he applied to this group of cases.

In the first place Dr. Rosenbloom was not really talking about chronic prostatitis at all, as the term is generally understood by urologists. If he had used the word which he coined, "prostatosis," instead of the term *prostatitis,* he might not be challenged. The group of symptoms which he described as "a discharge of thin, mucoid material from the urethral meatus, worse upon arising . . ." which "often stains the underclothing . . . seems to come and go without definite causal relationship to daily events" . . . often is "associated with mild dysuria, terminal dysuria, a feeling of incomplete urinary emptying" and discomfort in the perineum, low lumbar area, sacral area and sometimes in the testes and urethra—that group is certainly a commonly observed syndrome even in northern California, but to label this *chronic prostatitis* is completely improper and is misleading to those in general practice or other specialties who do not see it often enough to differentiate it from true prostatitis by the very simple methods which are at hand. I am sure that most urologists also agree that this is a psychosexual disturbance. No issue is taken with the author on the method of handling this type of case. Let's talk about prostatitis, however, because that is what the author labeled his article, and that is what most readers might think he is talking about.

Chronic prostatitis is a real, clear-cut, clinical entity, simple to diagnose when the proper methods are applied but obscure as to etiology and the treatment of which is frequently unsatisfactory and prolonged. That the treatment is not entirely satisfactory in many cases and has made little or no progress in an era when great progress has been made in other medical conditions, is no reason to place the diagnosis in obscurity, in my opinion.

The condition is observed sometimes in the late teens but more commonly in the 20's, 30's and 40's and somewhat less commonly in the older age groups. Various complaints may bring the patient to the doctor. The patient commonly complains of fatigue without much else to go with it. This he frequently terms "lack of pep," loss of his usual ambition both at work and play, sometimes a moderate loss of libido, frequently a mild low backache in the sacral area which is worse in the morning upon arising and improves after some physical activity and moving about in the morning. This type of individual will have completely negative physical findings and the urine is also usually completely negative. Unless the doctor is thinking of prostatitis as a possibility he will miss the opportunity to make the diagnosis at this stage. The prostate is ordinarily not remarkable to palpation and it is only upon purposeful milking of the prostatic secretion and examination under the microscope that the diagnosis of prostatitis can be made. About half of the group will have some associated urinary symptoms which are in the nature of frequency, urgency and dysuria.

Patients with such symptoms usually are seen by urologists and the two-glass urine test will show a significant number of pus cells in the first glass with definitely less or none at all in the second glass of urine. Here the clue is obvious and a prostatic massage with the obtaining of the prostatic secretion for examination is all that is needed to make the diagnosis.

In my experience fewer than 25 per cent will have noticed any urethral discharge in association with the above symptoms. Cases in which there is urethral discharge are not necessarily cases of chronic prostatitis; they may be owing to psychosexual disturbance. The distinction is easily made by the above mentioned methods. A signicant number of patients with chronic prostatitis whose symptomatology is outlined here, will not show more than an occasional pus cell in the prostatic secretion in the first specimen obtained by massage. Sometimes even the second specimen three or four days later will have few pus cells, but the third massage will usually produce the typical flood of many pus cells in the prostatic secretion. The lesson here is that if the story is very typical, one should persist in several diagnostic massages until prostatitis has been definitely ruled out.

Acute prostatitis is not, as is implied by the author of the article, an entirely different condition; and, contrary to his statement, I believe that acute prostatitis will usually not respond to the antibiotics. My own experience, over a period of about the same length of time that the author mentions, is that in fewer than 20 per cent of cases will there be any real change in the prostatic secretion with any type of antibiotic. Antibiotics should be used, however, because in these cases the bladder, especially the trigone and sometimes the kidney pelves, are involved in the infection and there is associated fever, leukocytosis, increased sedimentation rate and sometimes epididymitis. All of these complications (because that is what they are) of prostatitis will respond to the sulfonamides or the antibiotics quite promptly. What remains after the acute phase is over is chronic prostatitis and that the prostate gland is quite vascular is true from the surgical standpoint, but his intimation that the antibiotics administered by mouth or parenterally infuse the gland in adequate concentration is an unjustified deduction which does not follow the observations of other investigators. In fact, the contrary can be more logically assumed.

The most important point, I think, that should be made about prostatitis, either acute or chronic, is that it is the cause of the overwhelming majority of symptoms in the urinary tract of the male. General practitioners could deal with this large percentage of the urological problems presenting themselves if they would use a step-by-step procedure which includes physical examination of the genitalia, a two-glass urine test and a thorough prostate examination both by palpation and a stripping of the gland to obtain the prostatic secretion for microscopic examination.

Finally, it is perfectly patent that the treatment of prostatitis leaves much to be desired. Prostate massage, done properly, remains the basic treatment. Other procedures such as urethral calibration with sounds to rule out strictures and the treatment of complications with sulfonamides and antibiotics are necessary, but most of the other things such as irrigations and instillations have fallen by the wayside. A significant number of patients who do not respond to the standard methods can be cured by the direct injection of the prostate through the perineum with a spinal-type needle, using such antibiotics as penicillin, neomycin or terramycin.

Despite all the shortcomings of the treatment of prostatitis, I feel that it is quite important not to confuse the profession with articles such as this for the reasons that I have tried to outline above.

ROBERT A. BURNS, M.D.
Woodland Clinic Hospital
650 Third Street, Woodland

Editor, CALIFORNIA MEDICINE:

THANK YOU for your kindness in permitting me to answer Dr. Burns' letter. Careful reading of my paper would demonstrate immediately that the term "prostatosis" was suggested as a substitute for "prostatitis" precisely because of the greater accuracy of the word "prostatosis." The word "prostatitis" is used in the title simply because nearly everyone employs it. This is not a mere semantic differentiation, because my entire concept is based upon the opinion that "chronic prostatitis" is largely not infective in origin. To repeat the summary of the paper, " 'Chronic prostatitis' unaccompanied by signs of active inflammatory disease is a psychosexual disturbance, not a bacteriologic disease. Prostate massage, local therapy, and antibiotic therapy are usually of no therapeutic value; a careful history and evaluation of the background and good social and psychiatric counseling are the only effective and rational means by which this so-called 'prostatitis' is controllable."

Specifically, in answer to some of the details raised by Dr. Burns, the prostate gland is not singularly immune to antibiotic drugs which penetrate all other vascularized tissues. Unless a true abscess is present (which is rare), oral and parenteral antibiotic drugs are present in the prostate gland in adequate concentration. Simultaneously performed penicillin assays on blood and prostate fluid, in a patient receiving penicillin, will demonstrate adequate penicillin levels in the prostate fluid. Prostate fluid leukocytes ordinarily do not diminish in number after antibiotic therapy because usually they are not caused by infection. Bacterial cystitis and pyelonephritis are infections which will respond to correct antibiotic therapy. The concept that "chronic prostatitis" is simply a residuum of acute prostatitis is erroneous.

I have not seen a documented series of patients who were "cured" after direct injection of drugs through the perineum into the prostate gland with a long needle. If this must be performed, I would suggest the use of a panendoscope plus the "flexible infiltrating needle," A.C.M.I. catalog No. 193, which should accomplish the same purpose more accurately and elegantly, less dangerously, and with diminished medicolegal hazard.

I do not understand the several contradictions in Dr. Burns' letter. First he states that "the urine is also usually completely negative" and then says that "the two-glass urine test will show a significant number of pus cells in the first glass." It states that one must "persist in several diagnostic massages until prostatitis is definitely ruled out, then a "typical flood of pus cells will be produced after prostate massage every 3 or 4 days" from a prostate gland which "does not show more than an occasional pus cell in the prostate secretion in the first specimen." Which is correct? What is the "obvious clue"? The prostate gland consists of living tissue which becomes edematous and inflamed after injury. Certainly, vigorous prostate massage "every 3 or 4 days" will produce "a typical flood of pus cells." The correct term should be "traumatic prostatitis."

My article was written to clarify and to inform and enlighten; it does not "foster misconceptions," nor does it "mislead" anyone. It is not I who is confused.

David Rosenbloom, M.D.

July 15, 1955.

California MEDICAL ASSOCIATION

NOTICES & REPORTS

The A.M.A. President-Elect

NEW HONORS came to California this year when Dr. Dwight Harrison Murray was unanimously elected President-Elect of the American Medical Association.

When he takes office in the summer of next year, Dr. Murray will be only the fifth Californian to become President of the Association in the 108 years since it was founded. The others from this state who have received the rare honor: Thomas Logan of Sacramento, in 1873; R. Beverly Cole, San Francisco, in 1896; Ray Lyman Wilbur, Stanford University, in 1923; and John W. Cline, San Francisco, in 1951.

In personal qualifications and in apprenticeship and long service in medical organization work, Dr. Murray is exceptionally well equipped to continue the tradition of outstanding leadership established by the Californians who have preceded him.

Dr. Murray—"Murph" to his many friends—began by holding office in the Napa County Medical Association not long after he opened general practice in Napa following discharge from the Navy at Mare Island in 1922. His separation from service brought to a close a tour of duty that had begun in 1917 upon his graduation from the University of Indiana Medical School.

He was president of his county medical association, then a delegate to the California Medical Association. He was named chairman of the C.M.A. Committee on Public Policy and Legislation in 1940 just at the beginning of strong political drives for socialization of medicine in California. It was in that capacity that his great talent for honest persuasion came into full use. The very attributes that gave him easy rapport with patients and that made him an outstanding physician in his own community were of great value also in dealing with legislators. Warm, friendly, gentle, understanding and tireless, Dr. Murray came to be looked upon in legislative circles as the epitome of all the qualities they most admired in physicianship. His willingness

DWIGHT H. MURRAY

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to listen thoughtfully to expressions of points of view to which he was opposed, and still to advocate his own, served the C.M.A. and later the American Medical Association well. He has been aptly called "a most persuasive listener." Slow and deliberate of speech, he impresses even opponents with the calm of his sureness.

The guiding force behind establishment in 1944 of the United Public Health League, he was instrumental in the opening of medicine's first office for legislative representation in the nation's capital. The office supplied information to members of Congress seeking it in order to be able to take an intelligent position in matters of medical legislation.

This emergence upon the national legislative scene came in the first year after he became a delegate to the A.M.A. Soon afterward his extensive knowledge and cogent abilities in the field of politics as they affected the practice of medicine were given broader recognition in his election to membership on the A.M.A. Board of Trustees. He served as chairman of the Board's legislative committee for several years and then in 1951 became chairman of the Board. In that spiralling progression, Dr. Murray had more and more to do with organizing the American Medical Association along the lines it has followed in the past decade. The constantly increasing number of people who came to know him were soon or late impressed by the vast amount of information that he kept track of—by the store of data he kept at the front of his mind or could find swiftly when it was needed.

The new President-Elect was born on a farm near Springville, Indiana, in 1888. Married in 1921 to Miss Genevieve Collins, he is the father of two children, a daughter, and a son who is at present assistant resident on the surgical service of the University of California Hospital. He has five grandchildren.

Patients and neighbors who know him in his own community as a physician and friend agree with his own description of himself: "Family style doctor." Those who have worked with him in medical organization can add the epithet *good leader.*

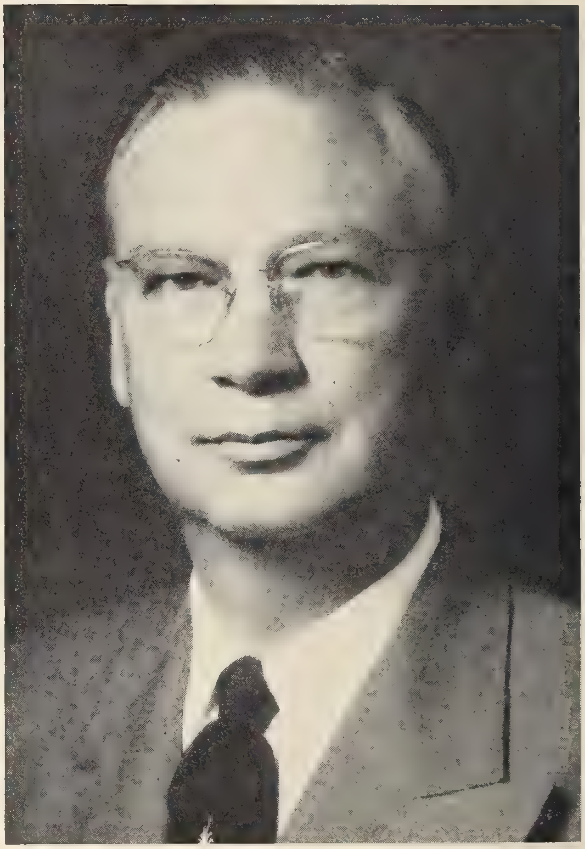
The New Speaker of the American Medical Association

THE NEW SPEAKER of the House of Delegates of the American Medical Association, Dr. E. Vincent Askey, lifts the gavel with a long and comprehensive preparation in the field of medical organization that fits him eminently to succeed to the post held by his many distinguished predecessors.

Dr. Askey was born in Sligo, Pennsylvania. His early and secondary education was obtained in the public schools of Pennsylvania, New York and Washington state. He received the degree of Bachelor of Science from Allegheny College in 1917 and the degree of Doctor of Medicine from the University of Pennsylvania in 1921. Immediately thereafter he entered upon a residency training in surgery. The years 1921-1923 were spent in the Episcopal Hospital of Philadelphia and the year 1923 to 1924 in the Kensington Hospital for Women in the same city.

Early distinguishing himself as an outstanding student, Dr. Askey was elected a member of Alpha Omega Alpha and Alpha Chi Sigma honorary fraternities. He is also a member of Delta Tau Delta and Nu Sigma Nu.

He has practiced his specialty of surgery in Los Angeles since 1924 and has been a member of the Los Angeles County Medical Association continuously during that period. Early evidencing an unusual interest in medical organization affairs, Dr.



E. VINCENT ASKEY

Askey became secretary-treasurer and trustee of the Los Angeles County Medical Association in 1935, a post which he held until 1937, continuing as trustee from the years 1937 to 1942. He became the county association's president in 1942.

Notwithstanding a busy surgical practice and his important contributions to the county medical association, he became a member of the Board of Education of Los Angeles in 1937; he continued in that position through 1943 and was president of the board in 1941.

It was only a natural and appropriate sequence that Dr. Askey should extend the scope of his influence and the benefit of his organizational talents to the state level. He became vice-speaker of the House of Delegates of the California Medical Association in 1943 and held that post until 1945. He was speaker of the House of Delegates from 1945 until 1947. Paralleling these state activities he became a delegate to the American Medical Association in 1944, a post which he still holds.

Dr. Askey's work in the House of Delegates of the California Medical Association and on the Council by virtue of his membership in its official family came during what some future historians will no doubt describe as the darkest days of the profession. Fortunately he was serving at a time when pressure by politicians during the days of World War II for socialization of medicine seemed about to prevail.

As the result of proposals that had been made by Dr. Askey several years previously, a state-wide public relations survey had been made in order to ascertain just what the people thought of California physicians and what they would like to have them do with respect to prepaid medical care. Following a careful study of many phases of this problem, California Physicians' Service was organized in 1939, designed primarily to supply prepaid budget medicine for persons in the lower income groups. With this organization as tangible evidence that the California Medical Association did in fact have an active and a constructive plan based on the voluntary prepayment of the cost of illness, and consequent upon an active and aggressive campaign of informing the people of the real advantages of the voluntary plan as opposed to compulsion, compulsory plans were defeated in 1945 and in subsequent legislative sessions.

Dr. Askey's work in the House of Delegates of the American Medical Association has been equally marked by discernment, good common sense and an interest in the long-term advantage of every practicing physician in the nation as well as in the rendition of the best type of medical care to every person who requires it.

During his earlier years on the California delegation to the American Medical Association, he participated very actively in that delegations' program to effect organizational changes in the Association's central office.

When the dark and destructive wave of collectivism began angrily to lash American medicine on the national level, and when, at the St. Louis meeting in 1948, emergency action was imperative, the House of Delegates naturally looked to the California delegation for a plan of voluntary prepayment which would prove effective against the Wagner-Murray-Dingell proposals. In the fight against that legislative incursion, Dr. Askey, our new speaker, took a prominent part. The election of our fellow Californian to that important post serves to remind us anew that only through such capable, well-grounded and constructive leadership as that within the power of Dr. Askey to give can we in medicine even remotely hope to continue to practice our science and art in an economic, political and social milieu which is in any manner conducive to scientific investigation and the widespread application and dissemination of the fruits of such investigations in their practical application to the prevention and treatment of human disease.

LEWIS A. ALESEN, M.D.

California Medical Association

House of Delegates

Proceedings

ANNUAL SESSION
1955

See page 125

The Cancer Commission

Organization, Duties and Activities

[The better to acquaint members of the California Medical Association with the duties and accomplishments of various committees and commissions of the Association, articles such as the one herewith will be published in California Medicine *from time to time.]*

The Cancer Commission of the California Medical Association was established by the following resolution of the House of Delegates of the California Medical Association, adopted in *April 1931* (California and Western Medicine, 34:432, June 1931):

"*Resolved,* That a permanent Cancer Commission of the California Medical Association be and is hereby created, whose function shall be to represent the California Medical Association in the fight which must be waged upon cancer to the particular ends that:

"1. Adequate means be provided in California for the education of the medical profession in the early diagnosis of cancer;

"2. That more adequate facilities for the diagnosis and treatment of cancer patients be provided;

"3. That research work on the nature, cause, behavior and treatment of cancer be encouraged.

"That said Cancer Commission consist of nine members of the California Medical Association appointed by the president of the California Medical Association; and approved by the Council of the California Medical Association;

"That of the nine members first so appointed, three shall serve one year, three shall serve two years and three shall serve three years and that vacancies as they occur by expiration of term of service or otherwise shall be filled by appointment by the president of the California Medical Association subject to the approval of the Council;

"That three of the nine members of said Cancer Commission be designated by the president of the California Medical Association, respectively chairman, vice-chairman and secretary of the Commission, and that the three members so appointed serve ex-officio as executive committee of the Commission, whose function shall be to conduct the business of the Cancer Commission in the interim between its meetings;

"That said Cancer Commission be and is hereby directed to report to and be guided by instructions of the House of Delegates of the California Medical Association in regular annual convention assembled and that in the interim between said conventions the Cancer Commission be and is hereby directed to report to and receive instructions from the Council of the California Medical Association."

In presenting the resolution to the House, Dr. Alson Kilgore emphasized that the Cancer Commission should cooperate with the American Society for the Control of Cancer, the American College of Surgeons, the State Board of Health and other organized bodies.

The Commission sponsored *lectures and refresher courses* in cancer diagnosis and treatment, and stimulated the development of *consultation services and follow-up services* in many parts of the state. It also lent its aid to the then American Society for the Control of Cancer and to other bodies working for such purposes.

Between 1931 and 1935, the Commission arranged for a series of studies, reports and recommendations on cancer which were published in California and Western Medicine. In 1936 these were gathered together into a convenient volume entitled, "*C.M.A. Cancer Commission Studies*" (published by J. W. Stacey, Inc., San Francisco). These articles and the succeeding volume had a valuable influence by reflecting up-to-date thought on indications for surgical operation or radiotherapy, and for various combinations of these two main weapons in the fight on cancer.

During the war years (1941-1946), the Commission's activities were restricted, but immediately thereafter, it became active again.

In order to strengthen contacts with the local medical profession and provide a wider basis of representation, the Commission requested the Council of the C.M.A. to authorize the formation of an *Advisory Committee of nine members,* to be appointed annually by the president of the Association for a term of one year. As it was to be an advisory committee, the legal constitution of the Commission did not require alteration. This proposal was approved in May 1946, and since that time it has been the policy of the Commission to submit all matters to the entire *eighteen* members for decision and action.

* * *

American Cancer Society. In 1945 the Council of the California Medical Association authorized the members of the Cancer Commission to serve on the Board of Directors of the California Division of the American Cancer Society, and to cooperate with that organization. In that capacity, the Commission has attempted to advise and assist the program of the A.C.S. in California. In order that there be adequate representation of physicians on the Board of Directors of the A.C.S., six members of the Advisory Committee were selected to serve as directors along with the nine Commission members (the A.C.S. Board then being composed of 15 physicians and 10 lay persons).

Medical Director. In 1946 the Council of the C.M.A. authorized the Commission to employ a full-time medical director to assist the Commission with its numerous functions. This director surveys the Consultative Tumor boards which the Commission has encouraged in approved hospitals; he arranges for cancer education programs in various county medical societies, and for refresher courses in the larger cities. He functions as an active liaison with the cancer committees of the various medical societies, and is a key person in implementing the program of the Commission. He also serves as medical and scientific director of the California Division of the American Cancer Society.

Consultative Tumor boards are to be distinguished from "Cancer Clinics." The function of the tumor board is to provide consultation on the diagnosis and management of problem cases that have been thoroughly studied previously. The board offers group consultation on cases referred from physicians but does not receive patients directly nor make the initial examination or diagnosis. It tends to function most effectively in large teaching hospitals, and where all board members are experienced in cancer work. The Cancer Commission recommends to the California Division of the A.C.S. that funds for secretarial expense be allotted to a board which meets regularly, sees a reasonable number of cancer patients, and adheres to the minimum standards of the Commission, as approved by the Association.

* * *

Between 1947 and 1950 the Commission sponsored a series of new articles on the diagnosis and treatment of cancer, all published in CALIFORNIA MEDICINE and finally collected into one volume entitled "*California Cancer Commission Studies.*" This was published by the California Medical Association, 450 Sutter Street, San Francisco, in *1950.* Like the first mentioned studies, this manual aided in clarifying some controversial aspects of cancer diagnosis and therapy. It is now under revision.

* * *

Since its inception, the Cancer Commission has sponsored annual conferences of radiologists and pathologists on cancer problems. These conferences are one-day meetings, and are held on the day preceding the annual meeting of the California Medical Association:

(a) The Pre-Convention Radiological Conference deals with tumor diagnostic problems in the morning, and with tumor therapeutic problems in the afternoon. Members bring films, slides and photographs.

(b) The Pre-Convention Pathological Conference has become known as the Conference on Microscopic Tumor Pathology. Pathologic slides are presented and discussed.

In addition to these pre-convention meetings, the pathologists also hold a mid-winter conference with a similar program.

These pre-convention cancer conferences increase in size each year and are attended not only by specialists in the fields involved but by many other physicians. An attempt is made to show only proved cases, with well-reproduced material, and to have a vigorous chairman who stresses the mutual educational aspects of the program. It can be said that both radiological and pathological proficiency are enhanced by these valuable study meetings.

Cancer Detection Clinics. In response to popular demand, the Commission aided a pilot study of Detection Centers in four communities from 1946 to 1949. Minimum standards for such clinics were adopted in May 1946. The study was summarized and published in February 1950. Detection Centers were found to be uneconomic and relatively ineffective, and the program was terminated in that year. Since 1949, stress has been laid on "The interested physician's own office as a detection center."

Hospitalization of Needy Cancer Patients. Again, in response to popular demand, the Commission aided the California Division of the A.C.S. in carrying out a pilot study on the provision of hospitalization for needy persons in 1947-48. Eligible persons were to be individuals with early, presumably curable cancer, not entitled to local public assistance, not admissible to the local county hospital, and unable to defray their own hospital costs. Approval was to be for a period up to 21 days; fees for professional services were *not* included. The program proved very difficult to administer, and rapidly exceeded the funds allocable by the Society. It had to be terminated.

Cancer Referral Panels. The Commission has urged and set up standards whereby each county medical society can provide (both directly and via the local A.C.S. Information Center) a list of physicians who will make "cancer examinations" and accept cancer patients for treatment. These lists are used on a rotation basis. The Center is asked to maintain a follow-up to assure that a physician has been consulted.

Tumor Registries. The Commission sponsors a C.M.A. Tumor Tissue Registry in the Los Angeles General Hospital, and in response to official requests has aided the State Public Health Department in the development of a California State Tumor Registry on a voluntary basis.

Cancer Surveys. From time to time, representatives of the Chronic Disease Section of the California State Department of Public Health have met with the Cancer Commission in order to work out effective cooperation between the programs of the two bodies. In this regard, the Commission is guided by the fundamental policies of the parent association which are to conduct and finance its work from dues and voluntary contributions, and to avoid, as far as possible, the use of state or federal tax funds for these purposes. In furtherance of a concurrent assembly resolution, the two groups studied the cancer problem from a statewide aspect in 1948; reports on this study were completed by Drs. L. Breslow, State Department of Health, and D. A. Wood of the Commission.*

Cancer Detection Grants. Some members of the Commission, and consultant scientists serve on the Special Grants Committee of the California Division of the American Cancer Society to recommend allocation of grants for cancer research projects financed by the State Division.

* * *

Cancer Remedy and Quackery Investigations. The Commission prepared and disseminated to over 700 newspapers and other public information media in California, a "Statement on Cancer Treatment" in January 1953. This statement was widely publicized and emphasized many facts concerning cancer, notably the fact that there was now available adequate means for testing alleged new remedies. Since 1952 the Commission has conducted intensive studies in connection with three such "remedies" and has published the results of these studies in the state medical journal (CALIFORNIA MEDICINE) as follows:

Laetrile treatment, April 1953.

Arginase treatment, December 1953.

Gregory treatment, April 1954.

In these studies, the Commission was aided by the data from the Bureau of Investigation of the American Medical Association, the state and the federal food and drug administrations and the Committee on Cancer Diagnosis and Therapy of the National Research Council. Unfortunately, all three supposed remedies were found worthless. The Commission's method of procedure in studying and reporting on such nostrums has been commended by many bodies.

The Commission has also disseminated to the medical profession and to the county society branches of the California Division of the American Cancer Society, available facts on other alleged cancer remedies such as the Koch, Hoxsey, Spears, Krebiozen and other "treatments."

The House of Delegates of the C.M.A. provides funds for the work of the Commission; these are supplemented by a grant from the California Division of the American Cancer Society in order to defray certain administrative expenses.

The Commission reports annually to the House of Delegates of the C.M.A., and periodically between meetings of that House to the Council. Any new policies or projects, such as cytology programs, cancer detection programs and cooperation with cancer surveys, are first cleared with the Council of the C.M.A. before final action by the Commission.

* * *

The officers and members of the Commission and Advisory Committee at the time of preparation of this report are as follows:

Cancer Commission

Ian G. Macdonald, M.D.,
chairman
David A. Wood, M.D.,
vice-chairman
L. Henry Garland, M.D.,
secretary
John W. Cline, M.D.
Albert C. Daniels, M.D.
Erle Henriksen, M.D.
John M. Kenney, M.D.
R. A. Scarborough, M.D.
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Edward M. Butt, M.D.
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James E. Kahler, M.D.
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Robert O. Pearman, M.D.
Victor Richards, M.D.
Robert S. Stone, M.D.

Medical Director

W. E. Batchelder, M.D.

[This historical summary was prepared by L. Henry Garland, M.D., secretary, April, 1955.]

REFERENCES

Additional data on the functioning of the Cancer Commission may be obtained by review of the annual reports by the chairman or secretary of the Commission which are published in the official journal of the state medical association each year. The following are specific references:

CALIFORNIA AND WESTERN MEDICINE:
36:438, June, 1932—C. A. Dukes, chairman.
38:312, April, 1933—C. A. Dukes, chairman.
40:302, April, 1934—Alson Kilgore, secretary.
42:317, April, 1935—C. A. Dukes, chairman.
44:422, May, 1936—C. A. Dukes, chairman.
46:52, Supplement to April, 1937—A. R. Kilgore, sec'ty.
48:48, Supplement to April, 1938—C. A. Dukes, chairman.
50:52, Supplement to April, 1939—A. R. Kilgore, sec'ty.
52:72, Supplement to April, 1940—Otto Pflueger, sec'ty.
54:202, April, 1941—Otto Pflueger, secretary.
56:220, April, 1942—Otto Pflueger, secretary.
58:202, April, 1943—Harold Brunn, chairman.
60:178, April, 1944—Harold Brunn, chairman.
62:222, April, 1945—Harold Brunn, chairman.
64:220, April, 1946—Lyell C. Kinney, chairman.

CALIFORNIA MEDICINE:
66:201, March, 1947—Lyell C. Kinney, chairman.
68:243, March, 1948—Lyell C. Kinney, chairman.
70:369, April, 1949—Lyell C. Kinney, chairman.
72:325, April, 1950—Lyell C. Kinney, chairman.
74:354, April, 1951—Lyell C. Kinney, chairman.
76:239, March, 1952—R. A. Scarborough, chairman.
78:402, April, 1953—Ian Macdonald, chairman.
80:269, March, 1954—Ian Macdonald, chairman.
82:280, March, 1955—Ian Macdonald, chairman.

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*Published in the official State Report on Chronic Disease in California, 1949.

ADDITIONAL PUBLICATIONS OF THE COMMISSION (partial list):

1. Cancer Commission Committee Studies, J. W. Stacey, Inc., San Francisco, 1936.

2. Cancer Commission Studies, Calif. Medical Association, San Francisco, 1950.

3. Minimum Standards for Consultative Tumor Boards. Adopted, 1946. Revised, July, 1947, and March, 1950.

4. Minimum Standards for Cancer Detection Centers in California. Approved by C.M.A., May 5, 1946. Discontinued, May 1, 1950.

5. The Cancer Committee of the County Medical Society. D. A. Wood, M.D., January, 1951.

6. Cancer Detection Centers: The Experience in California to Date. L. H. Garland, M.D., California Medicine, 72:99, February, 1950.

7. Cancer Diagnostic Facilities and Detection Centers—Editorial. J.A.M.A., 138:132, 1948.

8. Cancer Detection: A County Medical Society Program, Riverside, California. L. H. Garland, M.D., and C. P. McCullough, M.D. California Medicine, 80:65, February, 1954.

9. Cancer of the Female Genital Tract: Recommendations. California Medicine, 81:70, 1954.

In Memoriam

CHENEY, GARNETT. Died in San Francisco, June 16, 1955, aged 56, of carcinoma. Graduate of Harvard Medical School, Boston, Massachusetts, 1923. Licensed in California in 1925. Doctor Cheney was a member of the San Francisco Medical Society.

✣

GRAY, JOHN R. Died in San Jose, April 22, 1955, aged 82, of hypostatic pneumonia, hypertensive coronary disease, and diabetes mellitus. Graduate of the Lincoln Medical College, Eclectic, Nebraska, 1902. Licensed in California in 1922. Doctor Gray was a retired member of the Monterey County Medical Society, the California Medical Association, and an associate member of the American Medical Association.

✣

LANE, EDWARD H. Died in Los Angeles, June 27, 1955, aged 80. Graduate of The Hahnemann Medical College and Hospital, Chicago, Illinois, 1898. Licensed in California in 1927. Doctor Lane was a member of the Los Angeles County Medical Association.

✣

LEONARD, EILEEN M. Died in San Francisco, May 30, 1955, aged 59. Graduate of Stanford University School of Medicine, Stanford University-San Francisco, 1922. Licensed in California in 1922. Doctor Leonard was a member of the San Francisco Medical Society.

ROOT, III, JOSEPH L. Died in Orange, June 13, 1955, aged 47, of adenocarcinoma of cecum. Graduate of the New York Medical College, Flower and Fifth Avenue Hospitals, New York, 1949. Licensed in California in 1950. Doctor Root was a member of the Orange County Medical Association.

✣

SHAMBAUGH, NOEL F. Died in Long Beach, May 30, 1955, aged 59. Graduate of the University of Michigan Medical School, Ann Arbor, 1922. Licensed in California in 1929. Doctor Shambaugh was a member of the Los Angeles County Medical Association.

✣

WEES, MARSHALL P. Died in La Jolla, June 15, 1955, aged 49, of coronary occlusion. Graduate of the University of Michigan Medical School, Ann Arbor, 1943. Licensed in California in 1946. Doctor Wees was a member of the San Diego County Medical Society.

✣

WILLIAMSON, MARK A. Died in Encinitas, June 2, 1955, aged 76, of abdominal carcinoma. Graduate of the Cooper Medical College, San Francisco, 1902. Licensed in California in 1902. Doctor Williamson was a retired member of the Kern County Medical Society, the California Medical Association, and an associate member of the American Medical Association.

WOMAN'S AUXILIARY

TO THE CALIFORNIA MEDICAL ASSOCIATION

THE STORY GOES that when your Woman's Auxiliary was first organized in 1929, it was greeted with good-natured tolerance. If the women wanted another excuse for tea parties, well and good!

As 26 years of history has proven, however, the Woman's Auxiliary to the California Medical Association turned out to be anything but "just another woman's club." From small beginnings—49 charter members—it has grown to be the largest Auxiliary in the nation. With the recent addition of 24 charter members of the Merced County Auxiliary, membership topped 6,000.

The list of achievements is even more impressive. Here are a few facts and figures:

During the past year your Auxiliary contributed close to $18,000 to nurse recruitment, of which at least $14,000 went to scholarships, thus speeding hundreds of young women on their way to relieving the nursing shortage. . . . There are now 56 Future Nurse clubs sponsored by the Auxiliary throughout the state. . . . Since 1949, nearly $60,000 has been earmarked by the Auxiliary for nurse recruitment. Add to this an immeasurable amount of public interest in nursing as a career which has been stirred up. Last year the Auxiliary put $5,217.99 into the coffers of the American Medical Education Foundation.

While primarily *not* a money-raising group, your Auxiliary contributed over $3,000 to Physicians' Benevolence Fund last year, bringing the grand total of donations to this fund to approximately $33,000 in the past 14 years.

Your Auxiliary works hand in hand with its Advisory Board. Current members of this board are Dr. Sidney Shipman, Dr. Donald A. Charnock, Dr. A. Justin Williams, Dr. Daniel Morton, Dr. Albert Daniels. The Auxiliary affiliates with no other federated organization without a go-ahead from the Advisory Board—checks all its policies and activities with the board.

Your Auxiliary is a member of the National Safety Council; a part of the Crusade for Freedom; a part of the World Medical Association.

Last year the Woman's Auxiliary was commended by the California State Legislature for being "an organization which has rendered many valuable services throughout the State of California." . . . Members keep up-to-date in legislative affairs on both the state and national level.

Although your Auxiliary handled tens of thousands of dollars last year, it functioned on an income of just $5,864. (Auxiliary books are audited on April 15 of each year, and a financial report is issued on the membership in May.) . . . Dues in the County Auxiliaries vary from $3 to $10 a year. Of this, $1 goes to the National Auxiliary, $1 to the State Auxiliary, the remainder to the County Auxiliary. Physicians' wives in counties where there is no Auxiliary may join the State Auxiliary for just $2 a year, and so enjoy its privileges (including a subscription to *Courier*) and a share in its interesting program.

Last year, your Auxiliary accounted for 2,770 new subscriptions to *Today's Health*, over 62 per cent of its quota. (When subscribed through an Auxiliary member the price is a thrifty $1.50 instead of the regular $3.) . . . Members of the Auxiliary devote time and talent to many health service organizations, including the American Cancer Society, the Heart Association, the Crippled Children's Society, the Red Cross. Members help staff blood banks all over the state.

Two members of the Auxiliary have served as president of the Woman's Auxiliary to the A.M.A.—Mrs. James F. Percy, 1932-33; Mrs. Ralph Eusden, 1952-53. . . . Mrs. Carl Burkland, former state president, was reappointed secretary of the National Auxiliary for 1955-56.

Your Auxiliary feels that it can make one of its greatest contributions through community service—that through the performance of its individual members it can best promote friendship and understanding for the medical profession. . . . Members double their efforts at Christmastime to work on community projects, bringing Christmas cheer to the aged, the ill, the crippled and the shut-in.

Your Woman's Auxiliary has as its constant aim the bettering of public relations for the medical profession, the promotion of better understanding in the fields of medicine and public health.

The Woman's Auxiliary has 32 county auxiliaries organized out of a possible 40—6,002 individual members compared to the 13,500 members of the C.M.A.

The Los Angeles County Auxiliary is the largest County Auxiliary in the country, with 1,660 members. This tops the membership in state auxiliaries of 13 other states.

The state magazine *Courier* has been nationally commended, year after year, as the best publication in its field.

At the recent convention of the National Auxiliary in Atlantic City, your State Auxiliary received two awards from A.M.E.F. . . . participated on the legislation panel and the publications panel.

Your Auxiliary takes an active part in Civil Defense, sponsoring programs in its various counties. It is also active in mental health. An auxiliary committee is set up to work with the American Medical Association in self-education to determine our mental health facilities and resources.

Members get behind fund-raising projects with enthusiasm . . . last year $3,005.42 was rung up in one county fund-raising project alone.

Behind all this activity there is a great deal of organization and work. So that you may become well acquainted with your Auxiliary and how it functions, we are planning to bring you informative articles about several of our different activities during the year.

CALIFORNIA MEDICAL ASSOCIATION

Annual Meeting

Ambassador Hotel

LOS ANGELES

April 29 - May 2, 1956

Papers for Presentation

If you have a paper that you would like to have considered for presentation, it should be submitted *to the appropriate section secretary* (see list on this page) not later than November 19, 1955.

Scientific Exhibits

Space is available for scientific exhibits. If you would like to present an exhibit, please write immediately to the office of the California Medical Association, 450 Sutter Street, San Francisco 8, for application forms. To be given consideration by the Committee on Scientific Work, the forms, completely filled out, must be in the office of the California Medical Association not later than December 1, 1955. (No exhibit shown in 1955, and no individual who had an exhibit at the 1955 session, will be eligible until 1957.)

SCIENTIFIC PAPERS

SCIENTIFIC EXHIBITS

PLANNING MAKES PERFECT

AN EARLY START HELPS

SECRETARIES OF SCIENTIFIC SECTIONS

ALLERGY	William J. Kerr, Jr.	711 D Street, San Rafael
ANESTHESIOLOGY	Robert W. Churchill	1180 Montgomery Drive, Santa Rosa
DERMATOLOGY AND SYPHILOLOGY	Anker K. Jensen	1052 West Sixth Street, Los Angeles 17
EAR, NOSE AND THROAT	E. Gordon McCoy	490 Post Street, San Francisco 2
EYE	Channing W. Hale	174 Nemaha Street, Pomona
GENERAL MEDICINE	Harold C. Sox	300 Homer Avenue, Palo Alto
GENERAL PRACTICE	T. Jackson Laughlin	10910 Riverside Drive, North Hollywood
GENERAL SURGERY	Orville F. Grimes	U. C. Medical Center, San Francisco 22
INDUSTRIAL MEDICINE AND SURGERY	Homer S. Elmquist	629 So. Westlake Avenue, Los Angeles 57
OBSTETRICS AND GYNECOLOGY	Ralph C. Benson	U. C. Medical Center, San Francisco 22
ORTHOPEDICS	A. B. Sirbu (Acting Secretary)	450 Sutter Street, San Francisco 8
PATHOLOGY AND BACTERIOLOGY	Justin R. Dorgeloh	378 Thirtieth Street, Oakland 9
PEDIATRICS	Moses Grossman	U. C. Medical Center, San Francisco 22
PSYCHIATRY AND NEUROLOGY	William F. Northrup, Jr.	696 East Colorado Street, Pasadena 1
PUBLIC HEALTH	Wilber J. Menke, Jr.	City Hall, Pasadena 1
RADIOLOGY	Austin R. Wilson	540 North Central Avenue, Glendale 3
UROLOGY	Edmund Crowley	1930 Wilshire Boulevard, Los Angeles 57

NEWS & NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

A grant of $23,149 by the National Foundation for Infantile Paralysis to the California State Department of Public Health to provide supplementary **funds for research** to develop a simple diagnostic test for poliomyelitis was announced recently. The work will be under the direction of Dr. Edwin H. Lennette, chief of the health department's Viral and Rickettsial Disease Laboratory.

At the same time it was announced that the University of California at Berkeley received $85,198 from the foundation for continuance of **studies to determine the chemical composition of the virus** that causes poliomyelitis. This research is being carried on by Dr. Wendell M. Stanley, director of the Virus Research Center on the Berkeley campus.

Dr. Stanley also was awarded a supplementary grant of $1,790 by the **American Cancer Society** to continue a cancer research project.

LOS ANGELES

The following officers of the **Radiological Society of Southern California** were installed in June to serve for the remainder of 1955 and the first half of 1956: Chairman, Dr. Lowell S. Goin, Los Angeles; vice-chairman, Dr. John D. Camp, Los Angeles; secretary-treasurer, Dr. James B. Irwin, San Diego. Other members of the Board of Directors are: Dr. Donald R. Laing, Pasadena, and Dr. George Jacobson, Los Angeles.

* * *

A $100,000 trust fund for **cancer research** at the Medical Center on the Los Angeles campus of the University of California has been established by James and Lorena Greims of Encino, Calif.

The fund will be used for certain surgical problems associated with cancer under the direction of Dr. G. A. Stevens, clinical professor of surgery. He will be assisted by Dr. David B. Shelton.

The research will be concerned with three different problems:

1. A study of factors which control growth of abnormal cells within the body.

2. Development and perfection of new operations for cancer treatment.

3. A study of the body processes and their control in the cancerous patient and the alteration of these processes following the removal of the cancer by operation.

* * *

Dr. Carroll J. Bellis of Long Beach, senior consultant in surgery at Long Beach General Hospital, has been declared the winner of the 1955 Mississippi Valley Medical Society essay contest for his paper "The Management of Acute Bowel Obstructions." Dr. Bellis will present the paper at the 20th annual meeting of the Mississippi Valley Medical Society to be held at the Jefferson Hotel, St. Louis, September 28-30. He will receive a gold medal, a certificate and a cash award.

The Southern California Psychiatric Society is publishing a Directory of Psychiatrists in Southern California. Any psychiatrist in the area who has not received an information sheet is urged by the Society to request it immediately from Jerome M. Kummer, M.D., associate editor, Box 305, Santa Monica.

* * *

Two top **administrative posts for physicians** with public health experience are now available in the Los Angeles City Health Department, it was announced recently. Additional positions in clinical medicine are also open.

Applications are now being received for the position of medical director, a post involving the direction and administration of the following departmental services: Communicable disease control (including tuberculosis and venereal disease control), maternal and child health, adult health, laboratories, and public health nursing. The salary range is $797 to $992 a month. In addition, the department is seeking a well qualified epidemiologist with formal training in public health, special experience in communicable disease control and administrative abilities. This position pays $715 to $889 a month.

Openings for chest specialists for clinical duties in the tuberculosis control service are available at salaries ranging from $608 to $775.

None of these positions requires a competitive civil service examination, the Department said. Further information may be obtained from H. C. Pulley, M.D., Los Angeles City Health Department, 111 East First Street, Los Angeles 12.

ORANGE

Dr. Harold M. F. Behneman, Laguna Beach, has been appointed to the staff of the American College of Surgeons as a field representative, Dr. Paul R. Hawley, director of the College, announced recently. Dr. Behneman will survey cancer detection and treatment facilities in the West, Northwest and western Canada. Serving also as College representative to the Joint Commission on Accreditation of Hospitals, he will survey hospitals in this area.

SAN FRANCISCO

Following is the program for the **Cancer Conference** of the California Division of the American Cancer Society to be held Friday afternoon, September 30, 1955, at the St. Francis Hotel, San Francisco:

2:00—Diagnostics in Cancer Work—John G. Walsh, M.D., Sacramento.

2:30—Current Virus Research Applied to the Cause of Cancer—Dr. W. M. Stanley, Berkeley.

3:00—Current Status of Environmental Factors in Lung Cancer—Paul Kotin, M.D., Glendale.

3:30—Psychological Impact of Cancer on the Patient and Family—Robert Crede, M.D., San Francisco.

4:00—Cancer of the Stomach in Hawaii—Walter B. Quisenberry, M.D., Honolulu.

* * *

Stanford University has received a total of $200,000 for medical fellowships from the estate of the late Charles Francis Aaron of Marysville, it was announced recently by Wallace Sterling, president.

Provided in continuing payments since Mr. Aaron's death in 1953, the money comprises the **Charles Francis Aaron Endowment Fund** as stipulated by his will. He arranged that it should be used to help "unusually qualified, but needy, recent graduates in medicine, for training in research of special fields."

The names of five of the guest speakers who will appear on the program of the 26th Annual **Postgraduate Symposium on Heart Disease** which is to be held October 5-7 at the St. Francis Hotel, were announced recently by the San Francisco Heart Association. They are: Dr. D. Evan Bedford of London, England, Dr. Franklin D. Johnston of Ann Arbor, Dr. Elliot V. Newman of Nashville, Dr. Edith Potter of Chicago, and Dr. Myron Prinzmetal of Los Angeles.

Cooperating with the San Francisco Heart Association in the presentation of this program will be six other Northern California County Heart Associations, Alameda, Marin, Monterey, San Mateo, Santa Clara, and Sonoma.

GENERAL

The 12th annual meeting of the **American Medical Writers' Association** will be held at the Hotel Jefferson, St. Louis, September 30, followed by an Association-sponsored Workshop on Medical Writing, October 1.

All physicians and collegiate graduates interested in medical writing, journalism or publishing are invited to attend the meeting and to become Association members. There is no registration fee for attending the meeting but a registration fee of $5 for the Workshop is required of nonmembers.

* * *

The **Arthritis and Rheumatism Foundation** is offering the following research fellowships in the basic sciences related to arthritis: (1) Predoctoral fellowship ranging from $1,500 to $3,000 per annum, depending on the family responsibilities of the fellow, tenable for one year with prospect of renewal. (2) Postdoctoral fellowships ranging from $4,000 to $6,000 per annum, depending on family responsibilities, tenable for one year with prospect of renewal. (3) Senior fellowships for more experienced investigators will carry an award of $6,000 to $7,500 per annum and are tenable for five years.

The deadline for applications is October 15, 1955. Applications will be reviewed and awards made in January 1956.

Information and application forms may be obtained from The Arthritis and Rheumatism Foundation, 23 West 45th Street, New York 36, N. Y.

* * *

The **American Dermatological Association** has announced the offering of a series of prizes for the best essays submitted for original work, not previously published, relative to some fundamental aspect of dermatology or syphilology. Cash prizes will be awarded as follows: $500, $400, $300, and $200 for first, second, third and fourth place, respectively. Competition in this prize contest is open to scientists generally, not necessarily to physicians. Manuscripts typed in English with double spacing and ample margins as for publication, together with illustrations, charts and tables, all of which must be in triplicate, are to be submitted not later than November 15, 1955.

The manuscripts should be sent to Dr. J. Lamar Callaway, secretary, American Dermatological Association, Duke Hospital, Duram, North Carolina.

* * *

The **Seventh Annual Symposium on Heart Disease,** sponsored by the **Washington State Heart Association** and the Washington State Department of Health, will be held September 30 and October 1 in the University of Washington Medical School Auditorium, Seattle. Among the speakers will be Dr. Howard Sprague of Boston, Dr. Charles Kossman of New York City, and Dr. Jesse Edwards of the Mayo Clinic, Rochester, Minn.

POSTGRADUATE EDUCATION NOTICES

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association. In order that they may be listed here, please send communications relating to your future medical or surgical programs to: Mrs. Margaret H. Griffith, Assistant Director, Postgraduate Activities, California Medical Association, 417 South Hill Street, Los Angeles 13.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Anesthesia—August 29, 30 and 31, 1955.

Surgical Anatomy, Tuesday evenings, September 20 to November 22, 1955.

Advanced Treatment of Emotional Problems, Thursday evenings, September 22 to December 15, 1955.

Annual Medical Lecture Series, Monday evenings, September 26 to December 12, 1955.

Application of Principles of Industrial Medicine to Private Practice, Wednesday afternoons, October 19 to December 14, 1955.

Aviation Medicine, Tuesday, Wednesday and Thursday, October 25, 26 and 27, 1955.

Pediatrics, Thursday, Friday and Saturday, October 27, 28 and 29, 1955.

Three Symposia: RIVERSIDE, Wednesdays, September 21, 28 and October 5, 1955—(a) What's New in Medicine; (b) Fevers of Unexplained Origin; (c) Obstetrics.

Three Symposia: SAN DIEGO, Wednesdays, October 26, November 2 and 9, 1955—(a) Radioisotopes; (b) Surgery of the Hand; (c) Burns, one-half day; Repair of Superficial Wounds, one-half day.

Contact: Thomas H. Sternberg, M.D., Assistant Dean for Postgraduate Medical Education, U.C.L.A., Los Angeles 24.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

In San Francisco:

Conference on Applied Therapeutics—October 17, 18 and 19.

Conference on Gynecology and Obstetrics—October 20 and October 21.

Ophthalmological Conference—December 5 to December 7.

In East Oakland:

Medicine for General Practitioners—Tuesday evenings, September 20 to December 6.

In Berkeley:

Postgraduate Institute—Wednesday evenings, Herrick Memorial Hospital, October 19 through November 23.

In San Mateo:

Evening Lectures in Medicine—Thursday evenings, September 22 to December 15.

Contact: Office of Medical Extension, University of California Medical Center, San Francisco 22.

UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES

In Ventura:

No. 843: Recent Advances in Diagnosis and Treatment. In cooperation with the Ventura County Medical Association. Six weekly lectures, September 29 to November 3, 1955.

In Los Angeles:

No. 873: Cardiac Resuscitation. Sponsored by the Los Angeles County Heart Association, each Wednesday throughout the year, U.S.C. Medical Research Building.

Contact: Office of Medical Extension Education, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles 33.

STANFORD UNIVERSITY

Important Recent Advances in Treatment in General Practice. September 12, 13, 14, 1955. 9 a.m. to 4:30 p.m. Fee, $75.00.

Recent Advances in General Surgery and Surgical Anatomy. September 12 through 16, 1955. 8:30 a.m. to 4:30 p.m. Fee, $125.00.

Contact: Jay Ward Smith, M.D., Associate Dean and Director of Postgraduate Education, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco.

COLLEGE OF MEDICAL EVANGELISTS

Announces graduate courses:

General Surgery and Surgical Specialties—October 2 to June 8, 1956.

Internal Medicine—October 2 to June 8, 1956.

Otolaryngology—October 2 to June 8, 1956.

Contact: Chairman, Section on Graduate and Postgraduate Medicine, College of Medical Evangelists, 1720 Brooklyn Ave., Los Angeles 33.

CALIFORNIA MEDICAL ASSOCIATION, POSTGRADUATE ACTIVITIES CIRCUIT COURSES

North Coast Circuit:

Eureka—Monday, October 17, 24, 31, November 7.
Ukiah—Tuesday, October 18, 25, November 1, 8.
Woodland—Wednesday, October 19, 26, November 2, 9.
Napa—Thursday, October 20, 27, November 3, 10.

Sacramento Valley Circuit:

Dunsmuir—Monday, October 17, 24, 31, November 7.
Chico—Tuesday, October 18, 25, November 1, 8.
Marysville—Wednesday, October 19, 26, November 2, 9.
Auburn—Thursday, October 20, 27, November 3, 10.

Contact: C. A. Broaddus, M.D., Director of Postgraduate Activities, P.O. Box A-1, Carmel, California.

Medical Dates Bulletin

AUGUST MEETINGS

State Board of Medical Examiners Oral Examination for Reciprocity Applications, Los Angeles, August 20.†

State Board of Medical Examiners Written Examination, Los Angeles, August 23-25.†

State Board of Medical Examiners Oral and Clinical Examinations for Foreign Medical School Graduates, Los Angeles, August 21.†

SEPTEMBER MEETINGS

Saint John's Hospital announces its Seventh Annual Postgraduate Assembly, September 12, 13 and 14, Elk's Club, Santa Monica. All physicians invited to attend. Registration fee, $10.00.

Contact: John C. Eagan, M.D., Director, Postgraduate Assembly, St. John's Hospital, 22nd Street at Santa Monica Blvd., Santa Monica.

OCTOBER MEETINGS

California Society of Internal Medicine meeting at Biltmore Hotel, Santa Barbara, October 1, 1955.

Contact: Mildred D. Coleman, secretary, 384 Post St., San Francisco.

San Francisco Heart Association announces the Twenty-sixth Annual Postgraduate Symposium on Heart Disease, at St. Francis Hotel, San Francisco. October 5, 6, 7, 1955.

Contact: 604 Mission St., San Francisco 5.

San Diego County Heart Association Annual Symposium on Heart Disease, U. S. Naval Hospital, Auditorium, Balboa Park, San Diego, October 11.

Contact: H. Jack Hardy, executive secretary, 1651 Fourth Avenue, San Diego.

Los Angeles County Heart Association 25th Annual Symposium on Cardiovascular Diseases, Wilshire-Ebell Theater, Los Angeles, October 12 and 13.

Contact: Los Angeles County Heart Association, 316 So. Bonnie Brae Street, Los Angeles.

The 1955 Scientific Assembly of the California Academy of General Practice will be held in San Francisco, at the Sheraton-Palace Hotel, October 9-12, 1955.

Contact: William W. Rogers, executive secretary, 461 Market St., San Francisco.

State Board of Medical Examiners Written Examination, Sacramento, October 18-20.†

Mid-October—American Board of Psychiatry and Neurology Examinations, San Francisco.

Contact: David A. Boyd, M.D., Secretary, 102-110 Second Avenue, S.W., Rochester, Minn.

NOVEMBER MEETINGS

American Medical Association announces: Clinical Session, 1955, at Boston, November 29 to December 2, 1955.

State Board of Medical Examiners Oral Examination for Reciprocity Applications, San Francisco, November 12.†

State Board of Medical Examiners Oral and Clinical Examinations for Foreign Medical School Graduates, San Francisco, November 13.†

JANUARY MEETINGS

Los Angeles Midwinter Medical Convention, January 3, 4, 5, 1956, Biltmore Hotel, Los Angeles. An 85th anniversary, sponsored by Los Angeles County Medical Association.

Contact: Jerry L. Pettis, Public Relations Counsel, Los Angeles County Medical Association, 1925 Wilshire Blvd., Los Angeles 57. Telephone DUnkirk 5-1581.

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†*For information contact:* Louis E. Jones, M.D., secretary-treasurer, California State Board of Medical Examiners, Room 536, 1020 N Street, Sacramento. (Note: Applications must be on file at least two weeks before examination dates.)

INFORMATION

California Conference on Physicians and Schools

PATRICIA HILL
Consultant in School Health Education, California State Department of Education

THE FIRST California Conference on Physicians and Schools was held in Fresno, November 12-13, 1954, with more than 250 members of the educational, public health and medical professions participating. The purpose of the conference was to develop means by which the three professions can more closely coordinate efforts toward improving the protection of the health of California's school children. The conference was sponsored by the California Medical Association in cooperation with the State Department of Education and Public Health.

Four national conferences on physicians and schools have been held in recent years and the California conference is an outgrowth of these conferences. Representatives of local school districts and the sponsoring agencies who have attended one or more of the national conferences served on the planning committee for the California conference. Just as the national conferences have served as a stimulus for state conferences, it is hoped that the state conference will motivate personnel in local schools, public health departments, and medical societies to plan similar conferences on a regional level.

Superintendent of Public Instruction Roy E. Simpson, in his welcoming address to the participants at the California conference, pointed out that educators, public health personnel and physicians in private practice are all working with the same families. He stated further "that the health of California's school children plays a major role in the total educational program. The modern school deals with physical, mental, emotional and social development of each pupil. As child health is improved, other aspects of school endeavor are more successful. To learn effectively, children need good health."

Dr. Simpson emphasized that school health programs are not conducted in a vacuum, but are carried on in communities in which many individuals and agencies are vitally concerned with child health, and stated that "parents, physicians and dentists, health personnel serving the schools, the administrative and teaching staffs of schools and members of various community agencies all have important responsibilities in maintaining and promoting the health and welfare of the school-age child."

"I believe," said Dr. Simpson, "it is an important step forward to sit down together as we are doing at this conference to work out an interprofessional approach to some of our mutual problems."

Orientation to the conference was given by Fred V. Hein, Ph.D., consultant in Health and Fitness, Bureau of Health Education, American Medical Association, in a discussion of the "Scope of School Health." In opening his talk Dr. Hein stated that many people ask the question—"Why should the schools have a health program?" He presented the following answers to such a question:

1. Some children come to school with health problems that interfere with their ability to learn effectively. Methods to discover such blocks to learning and to encourage correction to bring about adjustment to them are essential.
2. In even the best organized schools a certain amount of sudden illness and some accidents are bound to occur. This makes procedures for dealing with emergencies, including large-scale disasters, a practical necessity.
3. Communicable disease is likely to spread readily among children gathered together in the close proximity of the school room. This obligates the school to institute and practice appropriate preventive and control measures.
4. During the school year children are compelled by law to spend several hours a day within the school and its environs. This, in turn, places a responsibility upon the school to provide a safe and healthful environment—mental and emotional as well as physical.
5. The school years present a unique opportunity for health education; tomorrow's citizens are grouped in an instructional situation during the formative period of their lives. Unless a golden opportunity is to be lost, this demands well-designed and progressive health education throughout the school grades.

To meet the needs stated or implied in the foregoing answers, Dr. Hein stated that "A carefully developed three-point health program, including health services, healthful school living and health education, is required." He described each phase and pointed out that the providing of such a program is too big a job for any one group, as it required a great variety of professional experience and training.

In stressing the need for cooperation between schools and physicians, Dr. Hein stated, "There must be mutual respect for the skills and abilities of each profession. For example, the educator turns to the physician for guidance on the medical phases of school health, but remains secure in the knowledge that its educational aspects are equally important. On the other hand the physician recognizes the value of educational 'know-how' and realizes that the contributions of both professions are essential to any worth while program of school health."

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EIGHT DISCUSSION GROUPS

Following the opening session, the participants grouped themselves into eight sections for discussion of the following specific topics: Communicable Disease; Health Guidance and Physical Education; Emotional Problems of Young Children; Environmental Aspects of School Health; Children with Special Health Problems; Personal Physician and School Health; School Physician and School Health and Emergency Care. Membership in each section was composed of school administrators, teachers, school physicians, school nurses, physicians and dentists in private practice, professional personnel from local health departments, and representatives from the State Departments of Education and Public Health. Highlights of the discussion and the recommendations made by each group were as follows:

REPORTS OF DISCUSSION GROUPS

Group I—Communicable Disease

Members of Group I agreed that the objective in control of communicable disease is "the maximum application of existing knowledge for the conservation of optimal health and well-being of the school-age child and for the prevention of illness, disability, and death from communicable disease." This group urged that *all* children be immunized by their family physicians early in life and prior to entering school. They felt that the school has a definite role in the interpretation of the need for adequate immunization, in encouraging parents to have their children protected before entering school, and in maintaining an adequate level of immunization in the entire community. Members of the group agreed that immunizations and vaccines should be administered, preferably, by physicians in their offices or by the community medical facilities rather than in school immunization programs.

The discussion group made the following specific recommendations:

1. There should be a continuing review, by appropriate persons, of the Health and Safety Code, Education Code, state regulations, and local ordinances and regulations to keep communicable disease aspects up-to-date.

2. Up-to-date information should be utilized and attitudes developed which will encourage desirable practices concerning "minor" illnesses such as colds, "flu," etc.

3. Medical and allied resources should continue to reexamine policies and practices in light of newer knowledge, and changes in these should be made accordingly. Sound, *flexible* policies should be formulated on the basis of current scientific facts, *local* attitudes and situation. These policies should be formulated by those individuals and groups concerned.

Group II—Health Guidance and Physical Education

For the purpose of discussion, the group accepted the following definitions:

1. "Health guidance" involves *all* measures from *all* persons giving instruction or services for health, including physicians, school physicians, school nurses, classroom teachers, school administrators, physical education teachers, parents, personnel from voluntary health agencies, and any others who may have contact with the child.

2. "Physical education" is a way of education through and of the physical and its purposes are in harmony with other areas of education.

Group discussion centered around the purposes of physical education, the type of program needed to achieve these purposes, and the need for cooperative planning by all personnel involved in health guidance. Following is a condensation of the recommendations made by members of Group II:

1. There should be a greater emphasis on health guidance and physical education in the elementary grades because these are the most formative years. . . .

2. The physical education program in secondary level should include various types of activities adjusted to individual needs. Athletics should be included in the program with necessary safeguards to insure benefits in participation for all girls and boys. Community pressures for winning teams need to be changed to support an all-around program.

3. Qualified personnel (persons with a professional degree in the field in which they are working, from a recognized accredited institution) should be actively concerned with programs of competition that are being developed in the communities. The standards that have been set up by national committees and which have been approved and accepted by national and local educational groups should be the basic standards used in all instances....

4. The size of physical education classes should be comparable to those in other areas if the physical educator is to make his contribution to the health education guidance program.

5. A school health committee with representation from all health guidance groups should be set up on a local level and services from each of these groups should be available for each of the other groups....

6. Cumulative records are essential if health guidance programs are to meet the needs of boys and girls. . . . It was suggested that a narrative type of record is desirable. ... The record must be good to be used and be used to be good.

7. It is essential that all health guidance personnel have adequate professional preparation for specific roles on the health guidance team and each be willing to work with other groups. Each group should have knowledge concerning the work of other groups. For example, physicians should know the nature of the physical education program, as this would influence granting of physical education excuses.

8. The school administrator, because of his key position in the health guidance program, needs to have the interest in and the knowledge of the health needs of the students.

9. Teacher-education institutions should include more health education in the professional preparation of all teachers and administrators.

10. Health services in schools should be under the direct administrative control of physicians who have special preparation in school health administration and, lacking availability of such personnel, school administrators should seek the help of the local medical society in setting up policies for school health practices applicable to the local situation.

11. Local medical societies have an obligation to exert positive leadership in the development of good school health programs in the schools of their geographic areas. Since the local school administrator is responsible for all activities within his school, such leadership should be exerted at the top administrative level, seeking a cooperative approach through joint committees with representation from the medical professions, public health, physical education and others interested in the health of the school child.

12. Graduate education for physicians participating in school health guidance programs should be encouraged.

13. The curriculum planning committee of medical schools should give consideration for the inclusion of appropriate amounts of time for instruction in the role of the physician in health programs for school-age children.

Group III—Environmental Aspects of School Health

The members of the group agreed that the term "healthful environment," applies to all the external factors that affect the health of the school child while he is under the jurisdiction of the school. The group also agreed that the purposes of creating or promoting healthful environment are to improve health and healthful living of those in the school; to further health education; to improve home conditions through learning experiences at school; to provide healthful relationships between all persons involved in the school program; to provide a setting for good instruction. The group discussed the responsibilities and services of various individuals and agencies in providing and maintaining a healthful environment, considering both legal and nonlegal responsibilities. Members of the group made the following recommendations:

1. That studies or surveys be made in view of the changing architectural plans to determine what effects they have on the emotional-physical life of the child.

2. In view of the overcrowded conditions of many of our schools, that we work toward smaller-sized classes with properly trained teachers and ancillary personnel.

3. That efforts be directed toward obtaining adequate facilities for improving the environment of the school health program.

4. In order to attain adequate health environment for school children, that all health services in the community be called upon as fully as possible.

5. That a clear method of communication between the school and the physician be devised.

6. Through his county and state organizations, the doctor and the dentist should support programs for improving a healthful and beneficial environment for the child.

Group IV—Emotional Problems of Growing Children

Members of Group IV assumed at the outset of their discussion that health is a primary objective of modern education and that mental health is an integral part of health. Mental health was described, for the purpose of discussion, as a condition that manifests itself in school children in at least the following three ways: *First,* the mentally healthy child displays an emotional development which is commensurate with his physical and intellectual age, if not his chronological age. *Second,* he makes use of, and is developing, his capacities to the greatest degree. *Third,* he is able to carry on a satisfying and constructive relationship with his peers.

In the opinion of the group, a clear-cut division between mentally healthy and mentally unhealthy children cannot be made. All children, in growing up, have emotional and social problems, and the schools must provide an emotional atmosphere which is conducive to the normal emotional and social development of all children. The first step in providing such an atmosphere, the group agreed, depends upon the selection and training of teachers and school administrators who are healthy, emotionally mature, and who understand the emotional and social needs of children as well as their edutional needs.

Considerable time was spent in discussing how the various professional people concerned with childhood health can learn to work together. Included in these professional roles were not only the family physician, the public health officer, and the educator, but also the nurse, the psychologist, the psychiatric social worker, and the psychiatrist. Participants stressed communication as an exceedingly vital factor in the solution of children's emotional problems.

Members of Group IV made the following recommendation:

In each sufficiently large school district, and through the county school offices with regard to smaller districts, advisory health committees should be set up, with representatives from such agencies as: County Medical Society, County Dental Society, Public Health Department, Voluntary Health Agencies, social agencies, and Nurses Association. These committees should be formed at the invitation of the school, with representatives appointed by the respective agencies, and should be concerned with both the mental and physical health of the children.

Group V—Children with Special Health Problems

Members of Group V agreed on the following basic premise applicable to children with special health problems: Wherever possible, the experiences common to normal children should be utilized in the education of the handicapped child. Thus, the common characteristics would be capitalized, rather than the idiosyncrasies of the handicapped. Members of the group felt that one of the most important steps in complying with the premise is early casefinding of children with special health problems, in which cooperation of the personal physician and the pediatrician seems essential. They also felt there should be greater utilization of existing casefinding procedures of school and health departments, and improved channels of communication between private physicians and community agencies.

Accurate appraisal of the child's status should enable the teacher to utilize the correct teaching procedures. Members of Group V also felt that education of parents toward acceptance and understanding of the particular health needs of their child is important in the development of better school health programs for children with special health problems. The group made the following recommendations:

1. That the general health of the child under treatment for a physical handicap be considered important and that this child receive continued supervision from the family physician or pediatrician as a coordinator.

2. That there be established minimum requirements for facilities and services for handicapped children on a county level.

3. That conferences similar to this be held on a local or regional basis.

4. That more education and guidance be provided for parents toward their acceptance and understanding of the particular health needs of their children.

Group VI—Personal Physician and School Health

The role of the personal physician and his county medical society in making effective a sound school health program cannot be overemphasized, according to members of Group VI. However, the discussion indicated that more education, regional and local, is needed before the active cooperation and assistance of the physicians can be assured. Participants felt that it was important that the objectives of school health be explained to the personal physician and suggested that this might be accomplished through discussion in county medical society meetings and through articles in society bulletins.

It was generally agreed that county medical societies should organize a program of physical examinations by private physicians. The suggested program would include use of a written form, worked out locally; examination of the children entering kindergarten, and possibly the sixth and ninth grades; a more detailed examination for children participating in competitive athletics; and cooperation between medical societies and doctors in offering reduced rates for preschool examination. It was also suggested that the county medical society be the liaison between doctor and health department. The following specific recommendations were made by this group:

1. That a health examination, including chest x-ray and pertinent laboratory work, of both certificated and noncertificated personnel of schools in California be required and that it be set up periodically during the term of employment, regardless of tenure status.

2. That the appropriate authorities be requested to remove the requirements of two years' experience from the physicians' and dentists' health and development credential.

3. That immunization and physician examinations be divorced from the schools and put back in the doctor's office.

4. That it be recommended to the California Medical Association and the public health profession of the State of California that preventive services be developed in general hospitals for the purpose of providing these services to the indigent part of the population and for the purpose of training young physicians.

5. That dental departments be established in county hospitals, and that these departments be used exclusively for preventive dentistry and the treatment of dental caries for preschool and school-age children.

6. That there be formed in each county medical society a school health committee, composed of physicians, that will work with other interested persons in solving the problems of the school health programs; and that the California Medical Association have a permanent staff person qualified in school health to assist such communities.

7. Due to the time element, it was felt that numerous items of mutual interest failed to be taken into consideration. Therefore, it is recommended that similar conferences be held in the near future on a regional basis.

Group VII—School Physician and School Health

In discussing the role of the school physician, Group VII considered various aspects of the entire school health program and agreed that this program is concerned with maintenance and promotion of the total health of the child in the broadest sense. The discussion which took place is summarized in the group's recommendation which follows:

1. The school health program should be concerned with maintenance and promotion of the total health of the child in the broadest sense.

2. The school physician has a responsibility to interpret the health problems of school children to parents, teachers, nurses, and others.

3. The school physician should participate in curriculum development wherever medical advice is indicated or needed, as well as serving as supervisor on emergencies and illnesses when policies or standing orders are developed.

4. The school physician has an in-service educational role in helping teachers, nurses, and other health personnel to develop insight and understanding of the health needs of the children.

5. The school physician should assume responsibility for community leadership in stimulating the development of health resources, to meet the needs of children, where these do not exist.

6. The school physician should assume leadership in integrating school and community activities.

7. The school physician should participate on, or stimulate the formation of, community school health councils and identify himself with voluntary health agencies.

8. The school physician should provide liaison between the schools and the county medical society and private physicians.

9. The school physician should serve as medical supervisor of the athletic programs and of school health environment.

10. The school physician has an important role in interpreting the multiplicity of forms and slips sent by the school to private physicians.

11. The school physician should serve as counselor or consultant to the school faculty.

12. Physical examinations, from time to time, are desirable. An examination of a child should do more than find defects; it should provide an opportunity for counseling, guidance, and an appraisal of the child's growth, development, and personality.

13. There should be a study at state and local levels on problems relating to children who are without adequate health supervision.

Group VIII—Emergency Care

For the purpose of discussion, members of Group VIII agreed that "emergency care" is the immediate care, such as first aid or exclusion, that is necessitated by accident or illness. This care should be provided in accordance with policies prescribed by school authorities pending assumption of control by parents and treatment by the personal physician, dentist, or other health advisors. Participants stressed the need for each school to have, *in writing*, standard orders and a complete statement of policies to be followed in emergency care. This should be developed by the school administrator, the teacher, the nurse, school physician or county health officer, lay citizens, and representatives of the medical and dental associations. The group stressed that final policies must have medical approval.

Members of the group agreed that in order to give the security which school employees need in order to provide adequate emergency care, governing boards of school districts should obtain blanket liability insurance for all district employees.

Members of the group recommended the following principles for reducing the need for emergency care:

1. There should be a periodic inspection of the entire school plant by qualified people, such as safety engineers, fire and safety insurance personnel, and members of the safety and health committee of the local health council; and also by pupils, parents, teachers, etc.

2. The health and safety curricula of the school must include areas of instruction related to prevention of accidents. Accidents are made, they don't just happen.

3. Teachers should be encouraged to use accident records and reports, accident surveys and other pertinent local information as the basis for classroom instruction in accident prevention.

4. School personnel should give special identification to health cards of individuals who have chronic illnesses to the degree that emergency care may be necessary at some time. Where health records are not immediately available, school authorities should be sure that certain basic health facts are ascertained from parents. The responsibility of parents in this area is paramount.

Group VIII also made the following general recommendations:

1. Accidents, no matter how minor, must have adequate reporting to the proper authority in the school and to the home.

2. A manual of directions for emergency care should be prepared. Listing symptoms rather than disease itself is more useful to the teacher.

3. Each school should have standard orders, in writing, and a complete statement of policies to be followed in emergency care. These policies should include a definite reference to first aid supplies. The orders should be duplicated and placed in the hands of every teacher and be in evidence in the first aid cabinet.

4. That the California Medical Association recommend to the Joint Committee of the State Department of Public Health and the State Department of Education the formulation of guides for the suggested development of local health policies and standing orders to be followed when emergency care is necessary.

5. If possible, teachers and athletic coaches be thoroughly trained in first aid.

6. That there is a grave need to orient and refresh all teachers in emergency care needs.

7. That local administrators promote first aid training by giving points or credits toward salary increments.

8. That teachers should know the state educational code requirements regarding field trips and excursions.

9. That the school secretary or clerk *should not be delegated* to do first aid unless she has had training in emergency care.

10. That governing boards of school districts obtain a blanket liability insurance policy for all district employees.

11. When emergency care has been rendered, the sick or injured child's parents or guardian *should* be notified at once.

12. The committee closed its work with a final recommendation that (1) because of need for emphasis on study of the total health program, services, instruction, and environment, and (2) because the school principal and/or superintendent is the key person in carrying out of a total school health program, we request the California Medical Association to ask Dr. Roy E. Simpson, Superintendent of Public Instruction of the State of California, to request the California Association of Secondary School Principals, and the California Association of Elementary School Principals to make "The School Health Program" the theme of their annual conference in the school year, 1954-1955.

SUMMARY

In general, participants felt that the first California Conference on Physicians and Schools, was successful in stimulating the coordination of efforts of educators, public health personnel, and members of the medical profession toward improving the health protection of California's school children. As one school superintendent said, "At least we are getting some action, not just talking to ourselves about the importance of the school health program."

The importance of teamwork among all persons concerned with the health of the school child was stressed in each discussion group. In reference to this teamwork, emphasis was placed on the need for better interpretation of the school health program and the need for improved channels of communication between school, parent, private physician and dentist and community agencies.

One of the recommendations of the conference as a whole was that similar conferences be held on a regional level where educators, physicians, and public health personnel could cooperate on the improvement of local health programs for the school age child. The California Medical Association is planning to sponsor nine such meetings between September, 1955 and May 1956.

The tone of the conference was well expressed in the words of one of the participants, who said, "A good school health program, including adequate health services, functional health teaching, and safe and healthful living conditions will do more than improve the health of school children. It will provide the foundation for healthier men and women and a healthier nation in the years to come."

Statement on Oxygen Administration

With Reference to Retrolental Fibroplasia

(The following statement was made by the Advisory Committee on RLF, to the California State Department of Public Health, June, 1955.)

EVIDENCE for a causal relationship between oxygen therapy and retrolental fibroplasia (RLF) now appears to be beyond reasonable doubt. Moreover, the available data indicate that limitation of oxygen treatment does not increase neonatal mortality. Infants weighing 2,000 gms. or less appear to be more susceptible to this syndrome. The incidence of retrolental fibroplasia appears to increase with each additional day of exposure to oxygen during the first seven to ten days of life.

It is strongly urged that the following policies with respect to oxygen administration be adopted at once by all hospitals caring for the newborn:

1. Oxygen should be administered to premature infants only on the specific order of a physician.
2. Oxygen should not be administered in concentrations exceeding 40 per cent, and should be discontinued as soon as the infant's condition permits. Cyanosis and respiratory distress may occasionally require oxygen concentrations exceeding 40 per cent for short periods of time.
3. The prescription for continued oxygen therapy should be renewed daily by the physician.
4. The actual concentration of oxygen during administration should be checked with an oxygen analyzer at least every eight hours.
5. When oxygen is administered for periods longer than three days, the oxygen concentration should be measured more frequently to be sure that it never exceeds 40 per cent.
6. The continuous administration of oxygen for periods in excess of three days should be prescribed only in exceptional circumstances.

The number of children reported as of August 1954 by the field staff of the California School for the Blind and the Variety Club shows a marked increase in the number of cases of retrolental fibroplasia between 1946 and 1952. Although data for 1953 and 1954 were incomplete, 77 per cent of the total known cases of blindness in preschool children in California between 1942 and 1954 were due to RLF.

Information on prevention of retrolental fibroplasia has been widely circulated in professional journals. However, the National Society for Prevention of Blindness recently reported that a considerable number of hospitals had not yet taken definite action to minimize this threat of visual damage.

Two oxygen analyzers for hospital use can be purchased in California:

1. Beckman: Manufactured by Arnold Beckman, Inc., 1020 Mission Street, South Pasadena. Cost approximately $200.
2. Mira: Manufactured by Medical Instrument Research Associates, 2656 W. Pasadena Avenue, Pasadena. Cost approximately $150.

Until such time as an oxygen analyzer can be purchased, it is recommended that a flow of not more than 2 liters per minute be permitted in the open-lid type incubator, and from 1 to 2 liters per minute in the porthole type. (Complete instructions for the maintenance of oxygen concentration in the Isolette have recently been mailed by the manufacturers to all hospitals owning these incubators. These instructions should be kept in the nursery and followed closely.)

ADVISORY COMMITTEE ON RETROLENTAL FIBROPLASIA

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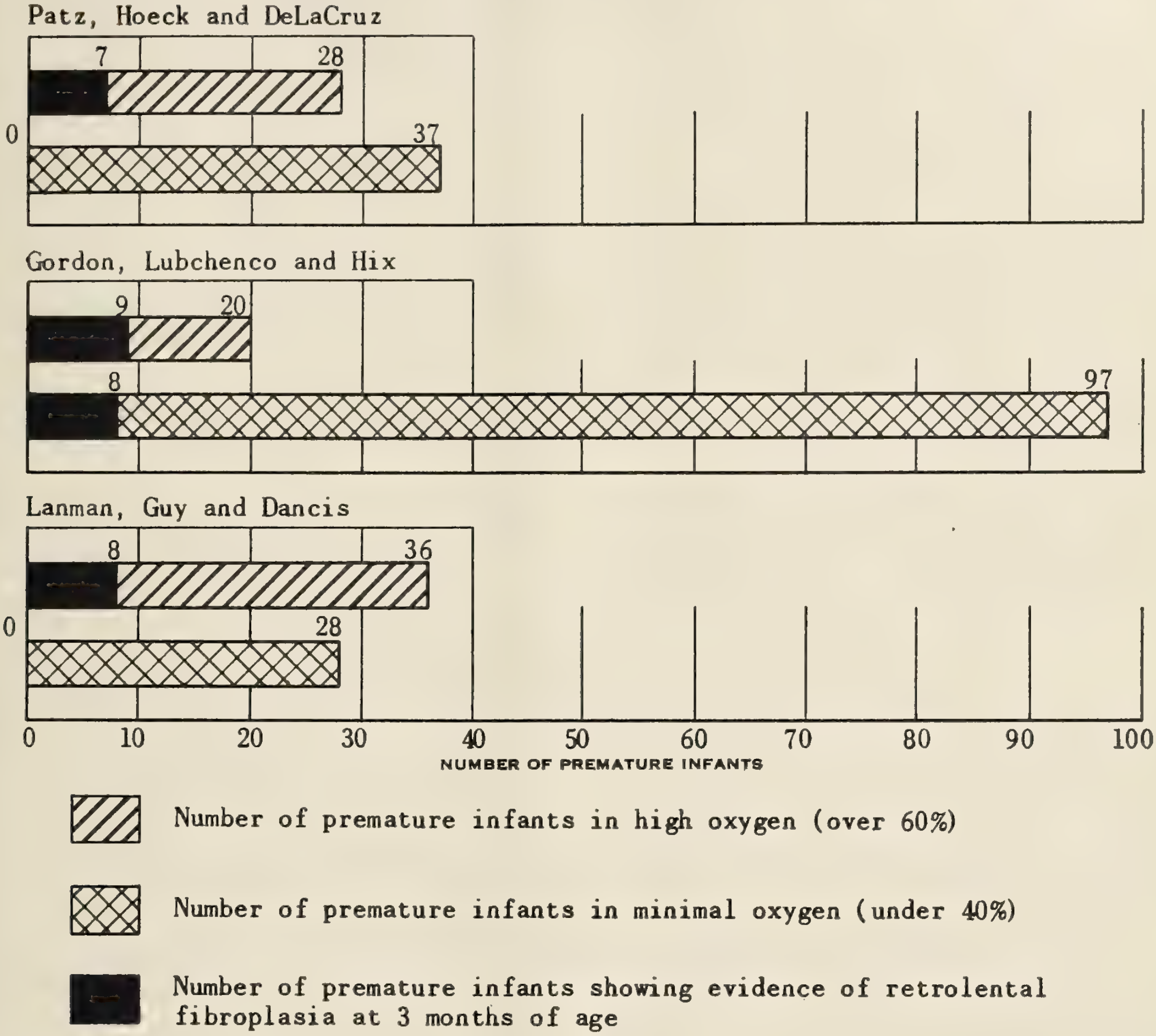
EFFECT OF OXYGEN ON RETROLENTAL FIBROPLASIA

Adapted from Figure in SCOPE, Vol. IV, No. 3, Fall, 1954

RESULTS IN THREE INVESTIGATIVE STUDIES



All infants in the first two series had birth weights to 1500 gm. (3.3 lbs.), in the third series from 1000 to 1850 gm. (2.2 to 4.1 lbs.). Criteria for evidence of retrolental fibroplasia were as follows: Top—retinal detachment (5 to 7 had membranes); Center—any detectable permanent change, in minimal oxygen group only 2 of 8 had retrolental membranes; in high oxygen, 7 of 9 had membranes; Bottom—irreversible cicatricial lesions (membranes).

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7. The control of oxygen therapy for the prevention of retrolental fibroplasia (editorial), J. Pediat., 46:3, March 1955.

THE PHYSICIAN'S *Bookshelf*

THE ADOLESCENT EXCEPTIONAL CHILD—A Realistic Approach to Treatment and Training. Proceedings of the 1954 Spring Conference of the Child Research Clinic of the Woods Schools, Langhorne, Pennsylvania.

This 78-page pamphlet constitutes the proceedings at the third Conference on the Exceptional Child to be held under the auspices of The Woods Schools for Exceptional Children. The other two conferences took place in 1950 and 1953 and dealt with the Exceptional Child in Infancy and Early Childhood, and the Exceptional Child in the Preadolescent Years, respectively. All conference proceedings, including this pamphlet, are available free of charge upon request to The Woods Schools at Langhorne, Pennsylvania.

This, the most recent of these conferences, deals with the diagnosis, treatment, training and, particularly, the occupational placement of the retarded adolescent. The discussion by the representative panel will be of interest to educators, physicians, parents, and all others concerned with the handling and guidance of retarded children.

* * *

HANDBOOK OF RADIOLOGY. Russell H. Morgan, M.D., Professor of Radiology, Johns Hopkins University Medical School, Editor; and Kenneth E. Corrigan, Ph.D., Associate Professor of Radiology, Wayne University, Associate Editor. The Year Book Publishers, Inc., 200 East Illinois, Chicago, 1955. 518 pages, $10.00.

This book is one that should find its way to the working library of every radiologist, every doctor working with ionizing radiations, and scientists working with radioisotopes, either naturally or artificially produced. The book is well conceived and the material in it well presented. The content of the handbook is best presented by giving the titles of its sections.

Section 1. Definitions of Physical Terms and Units (including Conversion Formulæ and Tables).

Section 2. General Physical Information (including Biophysical Data).

Section 3. Radiotherapeutic Data.

Section 4. Radioisotopes.

Section 5. Radiography and Fluoroscopy.

Section 6. Radiation Protection.

Appendix A. Common Drugs Used in Radiology.

Appendix B. Mathematical Tables.

Appendix C. The Greek Alphabet.

Appendix D. Schematic Diagrams of X-ray Generators and Particle Accelerators.

Section 1 presents a very large number of definitions not easily found in the working library of most physicians. The subsection on ionizing and light radiation gives definitions frequently needed by practicing and experimental radiologists.

Section 2 gives a great deal of information similar to that found in the handbook of chemistry and physics on the various atoms in the periodic table as well as data on the interaction of these with various radiations.

Section 3 gives mainly information on depth doses for all kinds of radiations.

The section on radioisotopes gives the decay characteristics of frequently-used isotopes and data on secondary radiation standards.

The section on characteristics of medical materials gives information on various developing solutions, characteristics of films, speed ratings of various film developer combinations, spectral distributions of light from various fluorescent screens, sensitivity of screens, and comparative data on various x-ray tubes.

The section on contrast media gives fairly complete up-to-date data on all contrast media.

The section on radiographic technique includes drawings of patient position as well as standard exposure techniques for all parts.

The section on radiation protection gives both the lead and concrete thickness required for adequate protection. It gives sensitivity ranges for photographic material used in radiation monitoring. It gives most useful data on the doses of radiation used in diagnostic radiographic procedures.

The editors and their collaborators should be congratulated on bringing out a most timely volume.

* * *

ADVANCES IN PEDIATRICS—Vol. VII, 1925. S. Z. Levine, Cornell University Medical College, Editor. The Year Book Publishers, Inc., 200 East Illinois, Chicago, 1955. 351 pages, $8.00.

This volume contains seven monographs of which possibly only three could be called "Advances in Pediatrics." Others are mostly extensive reviews of already well established pediatric knowledge and practices.

1. *On Fibrous Defects in Cortical Walls of Growing Tubular Bones*, John Caffey, Columbia University and Babies Hospital, New York. This monograph covers an x-ray study of 1,000 children. There are 16 pages of excellent radiographic plates. The structure of the lesions is discussed. The prevalence in normal children is considered as normal variants of growth. Differential diagnosis is discussed at length. Eighteen references.

2. *The Urinary Tract in Childhood.* Meredith F. Campbell, Miami, Fla. This is an encyclopedia of the urinary tract in children covering embryology, urinary obstruction, anomalies, infections, neuromuscular uropathy, tumors, calculi, injuries, symptoms, diagnosis and treatment. Nothing new is covered. A good review of all conditions relating to the urinary tract in children gathered from personal experience. Numerous tables and figures. Nine pages of x-ray reproductions. No references.

3. *Malnutrition in Infancy and Childhood with Special Reference to Kwashiorkor.* Frederico Gomez, Rafeal Ramos Galvan, Joaquin Cravioto, Silvestore Frenk, Hospital Infan-

til de Mexico, Mexico, D. F., Mexico. Etiology is largely economic, long continued under feeding, or failure to utilize proper foods, especially proteins. Three types are considered depending upon the degree of underweight. Pathological effect upon the various tissues and organs is discussed. Severe or third degree type is the same as the African Kwashiorkor. Treatment is outlined with poor prognosis in the third degree classification. One hundred twenty-nine references.

4. *Phonocardiography in Children.* Edgar Mannheimer, Caroline Hospital, Stockholm. Phonocardiography is recording the vibrations of the thoracic wall caused by the sound phenomena of the heart. Its value lies in giving information concerning sounds and murmurs and different types of gallop which cannot be heard by auscultation. Process demands reproducibility. He outlines fundamental acoustic principles and methods which involve a good knowledge of electronics. The phonocardiogram of normal children is described as well as the murmurs and sounds of congenital heart conditions, acute rheumatic fever and acute carditis. Seventeen plates, one of the apparatus and 16 of the various cardiac conditions. Seventy-three references.

5. *Infantile Cerebral Palsy.* Meyer A. Perlstein, Chicago. An excellent treatise covering incidence, etiology and pathogenesis with precipitating factors. Classification and clinical types are outstanding parts of the monograph. Cerebral palsy is incurable but he outlines the degree of mental and physical development expected. Drugs are of little value in treatment. Best result in treatment is by a team composed of most of the branches of medical practice. Five pages of unnumbered references.

6. *Mucoviscidosis.* Harry Shwachman, Hugo Leubner, Children's Medical Center, Harvard Medical School, Boston. A lengthy discourse. Since the disease is not primarily a disease of the pancreas but of an increased viscosity of fluids from secreting glands older nomenclature should be discarded. The incidence, classification, differential diagnosis and clinical picture are discussed at length. Methods and techniques of diagnosis are given. An outline of treatment is given for this ultimately fatal disease. One hundred forty-two references.

7. *Congenital Megacolon.* Oscar Swenson, Boston Floating Hospital and Tuft's Medical College, Boston. Diagnostic criteria are outlined for diagnosis of Hirshsprung's disease. Study of the urinary tract is advised for often there is atony of bladder and ureters associated. Differential diagnosis between ileal obstruction in the newborn and congenital Hirshsprung's disease is discussed. Limited operative technique is outlined which is life saving for these patients. The monograph is based on 139 operated cases. Twelve references.

* * *

THE ECZEMAS—A Symposium by Ten Authors. L. J. A. Loewenthal, M.D., M.R.C.P., D.T.M. and H., Lecturer in Dermatology, University of Witwatersrand, formerly Honorary Assistant Dermatologist, Hospital for Cancer and Skin Diseases, Liverpool. E. & S. Livingstone, Ltd., Edinburgh, distributed by Williams and Wilkins, Baltimore, 1954. 267 pages, $7.50.

The Eczemas is a symposium by ten authors who are well known authorities in dermatologic circles. Among the contributors to this concisely written book are Sulzberger, Haxthausen and Peterkin. There are 13 chapters which take up subjects such as contact eczema, allergic eczema, atopic dermatitis, the role of bacteria in eczema and so forth. The chapter on General Principles of Treatment in Eczema is sound and contains a good bit of practical advice. A useful formulary and a table of concentrations of vehicles to be used in patch testing is found in the appendix.

HANDBOOK OF TROPICAL DERMATOLOGY AND MEDICAL MYCOLOGY—Vols. I and II. Edited by R. D. G. Ph. Simons, Senior Lecturer at the Dermatologic University of Leyden and Dermatologist-in-charge at the Civilian Hospital, Amsterdam. Elsevier Publishing Company, 402 Lovett Blvd., Houston, 300 Park Ave., New York, 1952-53. 1745 pages, $15.00 per volume.

All skin diseases likely to be seen in tropical areas throughout the world are discussed in this large, two-volume work. Although over 90 contributors from all parts of the world have written chapters, the book is well organized in a surprisingly uniform style. Contributors from California include Paul Fasal on "Cutaneous Leishmaniasis" and "American Leishmaniasis," "North American Blastomycosis" and "Cutaneous Tuberculosis" and "Sarcoidosis"; Dr. Francis Keddie on "The Rickettsioses"; Dr. Frederick G. Novy on "Tropical Acne"; Drs. Maximilian E. Obermayer and G. Walter Wilson on "Disorders Caused by Animal Organisms"; Drs. J. Walter Wilson and Orda A. Plunkett on "Introductory Notes on the Term 'Blastomycosis'"; Dr. Robert A. Stewart on "Coccidioidomycosis."

Most of the chapters discuss particular diseases in a manner which facilitates easy reference; treatments suggested are up to date. Information is included on many dermatological disorders not confined to tropical areas such as vitiligo, chloasma, cutaneous syphilis, cutaneous syphilis and sarcoidosis; lymphopathia venerea, miliaria, scabies, oxyuria, allergy and the "id" concept and benign and malignant skin tumors. In the sections on Diseases Due to Fungi, there is a general discussion on Mycology followed by descriptions of the various superficial and deep mycoses. Many interesting and sometimes amusing facts of the history of dermatologic disease and terminology are revealed in the introductory chapters and addendum.

* * *

THE SKIN—A Clinicopathologic Treatise. Arthur C. Allen, M.D., Associate Pathologist, Memorial Hospital, Associate Professor of Pathology, Cornell University Medical School, New York. The C. V. Mosby Company, St. Louis, 1954. 1048 pages, 495 full page illustrations, $25.00.

The Skin is a clinicopathologic treatise by Arthur C. Allen, pathologist to the Memorial Hospital of New York City. This book represents an outstanding contribution. It encompasses 495 full-page illustrations and over 1,000 pages of text. The value of this book lies in the correlation of the clinical and microscopic pictures of almost every disease which affects the skin.

Of the 28 chapters in this text, Chapter 24 on nevi and malignant melanomas is the most outstanding. It incorporates information which is of interest to students of cancer, surgeons, dermatologists, radiologists and pediatricians.

This text is to be recommended as an outstanding contribution to the medical literature.

* * *

CARDIAC EMERGENCIES AND HEART FAILURE—Prevention and Treatment, Second Edition. Arthur M. Master, M.D., Cardiologist, Mount Sinai Hospital, N. Y., Associate Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia; Marvin Moser, M.D., Assistant Physician in Medicine, Montefiore Hospital; and Harry L. Jaffe, M.D., Assistant Attending Physician, Cardiology, Mount Sinai Hospital, New York. Lea & Febiger, Philadelphia, 1955. 203 pages, $3.75.

This compact book includes an astonishing amount of practical information on the therapy of various cardiovascular emergencies. It is divided into 9 chapters covering the arrhythmias, acute heart failure, coronary artery disease, syncope, rheumatic heart disease, hypertensive states, dissecting aneurysm, traumatic heart lesions, and surgery in heart disease. As such it covers the great majority of common conditions in which emergencies occur. Mention is not made, but would seem useful, of shock other than in myocardial infarction and of cardiovascular complications of pregnancy and labor. The presentation of details of drug administration and other therapy is succinct and current. This is noteworthy in digitalis intoxication, arrhythmias and myocardial infarction.

Short case histories enliven the presentations of results of therapy and the brief comments on the pathologic physiology and clinical patterns give reason for the therapy presented for various conditions.

The attempt to differentiate acute coronary insufficiency from other mild forms of myocardial infarction has not met with the universal acceptance warranting such separation, in this discussion of therapy.

As may be expected, there are certain subjects in which differences of opinion would arise as to relative importance of techniques and dangers of certain procedures. A few examples are:

1. Tent, rather than nasal cannulae or mask, administration of oxygen and the omission of the use of the Bennett positive pressure oxygen apparatus.

2. The assumed restriction of L-norepinephrine concentration to 4 mg. per liter in intravenous therapy for shock and inadequate details of the technique of administration.

3. The failure to define the duration, preferably 0.1 sec., of the high voltage electric shock for cardiac defibrillation.

This book is not merely a compendium of drugs and techniques, but rather an excellent critical appraisal of relative values of procedures according to the authors' broad experience and the consensus of published reports.

From the astute introduction of what should be available in the physician's bag, to the adequate bibliography and index, this monograph should be a valuable part of the working equipment of the active medical practitioner. Students will find it contains much authentic information clearly and briefly presented.

* * *

PRIMARY ANATOMY. H. A. Cates, M.B., Late Professor of Anatomy, University of Toronto, and J. V. Basmajian, M.D., Associate Professor of Anatomy, University of Toronto. The Williams and Wilkins Company, Baltimore, 1955. 339 pages, $5.75.

This is a very small-sized book on anatomy which is written particularly for the ancillary medical fields which require a knowledge of anatomy. As a result, it is very straightforward, simple, direct, with clear and concise diagrammatic illustrations. It serves a very useful purpose in this particular area but is a book which would hardly be of value for either the medical student or for the practicing physician. Its main field of usefulness will be for the physiotherapist, occupational therapist, students in physical and health education. It will also be an excellent book for nurses and for the latter groups of people it can be strongly recommended. This is not an anatomy book for medical students or physicians.

* * *

SHEARER'S MANUAL OF HUMAN DISSECTION—3rd ed. Edited by Charles E. Tobin, Ph.D., Associate Professor of Anatomy, University of Rochester School of Medicine and Dentistry. McGraw-Hill Book Company, Inc., 1955. 287 pages, $6.00.

With the recent trends to try and condense the amount of anatomy teaching in medical schools, one sees appearing on the market more and more, shorter textbooks of anatomy and shorter dissection manuals in the field of anatomy.

The effort of Charles E. Tobin in his revision of *Shearer's Manual of Human Dissection* has resulted in a book with this particular concept of the role of anatomy in medical school teaching in mind. The book is brief, concise and to the point. The illustrations in it are few, diagrammatic but clear and rather well done. The book could certainly not serve as a primary text in anatomy nor could it be used alone as a dissection manual in the field. However, it would serve a nice purpose for one who wishes to rapidly review the field of anatomy during the course of his student days or in his later years. In this regard it might be worth while to mention the fact that for the postgraduate physician a more ready review of anatomy can be obtained in the illustrated type of book which has recently been published by Bassett of Stanford University, but a book which is far more expensive. Nevertheless, an approach of the latter type makes anatomy a much more significant and live subject for the practicing physician or surgeon and also serves excellently for students.

If one is looking for a small inexpensive book on human dissection the book by Dr. Tobin is well done. On the other hand it is not equal to the standard textbooks of anatomy and does not afford the simplicity of the extensive visual aid types of books which have been referred to above. The approach is not from the surgical standpoint so it would be of relatively little value for the operating surgeon.

* * *

DISEASES OF THE SKIN—8th ed., thoroughly revised. Oliver S. Ormsby, M.D., Late Rush Professor of Dermatology, University of Illinois; and Hamilton Montgomery, M.D., M.S., Professor of Dermatology and Syphilology, Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester, Minn. Lea & Febiger, Philadelphia, 1954. 1503 pages, 666 figures containing 750 illustrations and 18 colored illustrations on 11 plates, $22.00.

The eighth edition of Ormsby and Montgomery's *Diseases of the Skin* contains numerous improvements over the previous edition. DeLamater, Professor of Dermatology at the University of Pennsylvania, has brought his section on mycologic disorders up to date; Lobitz of Dartmouth has contributed a chapter on the physiology and chemistry of the skin. This represents the finest chapter of its kind in any dermatologic text. Kierland and Farber have contributed chapters on syphilis and peripheral vascular diseases respectively.

More information is available on the classification and treatment of pemphigus, and excellent information is available on the classification of lupus erythematosus and the identification of the L. E. cell.

This book is to be recommended to specialists in dermatology and pathologists.

* * *

POMP AND PESTILENCE—Infectious Disease, Its Origins and Conquest. Ronald Hare, M.D., Professor of Bacteriology in the University of London and at St. Thomas's Hospital Medical School. The Philosophical Library, Inc., New York, 1955. 224 pages, $5.75.

This readable little book deals with infections from a general standpoint; it is, however, richly documented with so many specific examples that one has no feeling of vacuity. The reader may gather an idea of what is in the book by scanning the table of contents—Parasites and Parasitism, Man and His Parasites, Parasites and Pestilence, Miasmas or Microbes and finally the Reaction of the Community and of the Individual and Parasites and Populations. There are chapter notes with references to the literature and there is an index. To show how quickly things move, in the group of parasites over whose effect we have no control poliomyelitis is still mentioned!

AMPUTATIONS. Leon Gillis, M.B.E., M.B., B.Ch.(Witwatersrand), M.Ch.Orth.(Liverpool), D.L.O.(London), F.R.C.S.(England), F.R.C.S.(Edinburgh), Hon. F.I.C.S.(Geneva). Grune & Stratton, New York, 1954. 423 pages, $12.75.

This monograph, *Amputations*, is a comprehensive textbook containing invaluable material pinpointing the guiding principles and modern techniques. Particular discussion concerning obsolete operative procedures heretofore perpetuated in general surgery texts is one of the main themes running through the entire presentation. The methods to prevent these older common errors are interwoven throughout the text with definitely organized planning.

Each of the twenty chapters of the book of more than 400 pages is clearly written to direct purposeful surgical action in conditions requiring amputation, not only in accordance with time-tested principles, but also to explain advances made possible by more recent surgical experience and rehabilitation with mechanically improved prostheses.

A successful method of neo-arthrosis of the shaft of the humerus is an example of one of these advances; others include more practical schemes to enlist residual function in upper extremity amputation stumps by plastic reconstruction. Much of the contrary teaching of the past, little more than mummery of ancient dicta, is corrected by ample logical discussion.

The numerous clear illustrations are unusually pertinent, serving as extremely valuable visual stimulants to further exploration and study of the text.

* * *

DEMONSTRATIONS OF PHYSICAL SIGNS IN CLINICAL SURGERY—12th ed. Hamilton Bailey, F.R.C.S.(Eng.), F.A.C.S., F.R.S.E., Emeritus Surgeon, Royal Northern Hospital, London. Assisted by Allan Clain, M.B.(Cape Town), F.R.C.S.(Eng.), Senior Surgical Registrar, Royal Cancer Hospital, London. The Williams and Wilkins Company, Baltimore, 1954. 456 pages, $8.00.

The art of a physical examination is rapidly becoming a lost art in these days of highly specialized techniques and the application of biophysical instruments to the study of clinical pathological, physiological states. Nevertheless, there is a great need for a simple, clear book on the physical signs of clinical surgery and the book by Bailey serves this purpose admirably.

The majority of surgical disorders are still diagnosed essentially by inspection and palpation, percussion and auscultation and this book is a masterpiece of presentation of the physical signs of clinical surgery.

It can be strongly recommended to medical students and to the practicing physician who is interested in sharpening his diagnostic acumen from proper interpretation, understanding of physical signs and clinical surgery. It is the best book in its field in this area and it can be strongly recommended.

* * *

NEUROLOGY—3 vols.—2nd ed. S. A. Kinnier Wilson, M.A., M.D., D.Sc.(Edin.), F.R.C.P., formerly Physician, National Hospital, Queen Square; Senior Neurologist, King's College Hospital. Edited by A. Ninian Bruce, F.R.C.P.(Edin.), D.Sc.(Edin.), M.D., F.R.S.(Edin.), Lt.-Col. R.A.M.C., Consulting Physician, Bangour Mental Hospital and St. Andrew's Hospital, Hawick. The Williams and Wilkins Company, Baltimore, 1955. 2060 pages, plus 99 pages of index, $37.50.

It will soon be twenty years since the death of Kinnier Wilson. His textbook of neurology was unfinished at his death, and the task of getting the material in shape for publication was undertaken ably by Dr. Bruce, who has now brought out a second edition of the work. In the second edition are included a chapter on Aphasia, Apraxia, and Agnosia by Sir Russell Brain, thus making up this deficit of the original text, as well as a bringing up-to-date of the portion dealing with the treatment of neurosyphilis which has changed so markedly in the interval. Other additions have been made to encompass modern progress in the subject, but without changing the greatest asset the book possesses, which is Wilson's clear and polished mode of expression. In all, the necessary changes have resulted in a book which will continue to hold its place as pre-eminent among textbooks of neurology in the English language. It is now contained in three volumes of about 600 pages of text each, and forms the best reference work on the subject with which the reviewer has come in contact. Although it cannot attain the encyclopedic coverage of compendia written by many experts in the various fields, it has the great advantage of presenting one man's critical evaluation of the whole field of neurology, and for this reason is highly recommended.

* * *

A TEXTBOOK OF PHYSIOLOGY—17th Edition. Edited by John F. Fulton, M.D., Sterling Professor of the History of Medicine, Yale University School of Medicine. W. B. Saunders, Philadelphia, 1955. 1275 pages, 600 illustrations, $13.50.

Five years have elapsed since the previous edition of this book; by this time there is little material recognizable as remaining from the fifty-year-old Howell. This volume represents the combined efforts of thirty contributors and the editor, each of whom has excellent command of his respective field. It is an advanced, detailed and generally up-to-date textbook. For the beginning medical student it represents heavy going and is definitely not in the category of a quick and handy survey of the field of physiology. Of the available advanced modern textbooks, it should be awarded first place as a sound reference work, but the practicing doctor will not find physiological principles neatly tied to clinical problems, as is the case with one of the major English textbooks of physiology and another from the Canadian group. For those in search of a quick review to prepare for state or national board examinations, Fulton will be useful chiefly to those whose background in physiology is relatively complete and recent. For the more advanced graduate preparing for specialty boards this text should serve an extremely useful purpose for topical reference.

This book divides the topics into twelve sections. The first four deal with the physiology of nerve, muscle and the central nervous system; blood, circulation, and respiration occupy the next three sections. One section is devoted to each of the following: body fluids and kidney functions; digestion; metabolism and nutrition; endocrine system; and the physiology of reproduction. By far the largest group of sections in the text concern the special field of the editor and reflect his preoccupation with this aspect of physiology. In the opinion of the reviewer the text is overburdened with nervous system physiology, although it is extremely well done. The organization of the book suffers somewhat from too rigid adherence to the traditional division of material by systems, a pattern to some extent enforced by multiple authorship of the various chapters and sections.

Portions of the book rewritten since the sixteenth edition include the first seven chapters covering nervous system and muscle. It is gratifying to note that muscle physiology has come of age. The stultifying preoccupation with twitching frog muscle has given way to an interesting combination of functional and metabolic aspects of muscle physiology, up-to-date and clearly related to medical problems. The chapters on Body Fluids and Kidney Function have been rewritten for the seventeenth edition. Dr. William Blake's discussion of kidney function is particularly well handled. It is clear, critical and up-to-date, with the best analysis of current evidence on renal management of water and electrolyte that has come to this reviewer's attention. The companion chapter on Body Fluids by Dr. Raul Hernandez-Peon, except for some minor errors (see Table 27) is well presented. Although this chapter seems superior to those on the same topics in other major texts, it makes not quite adequate use of the more recent literature, and it is written with less critical skill and helpful analysis of evidence than that on kidney function.

Many cardiologists will probably take sharp issue with the point of view expressed in Nahum's presentation of the material on electrocardiography. The dipole theory dies hard. In this controversial field it is gratifying and refreshing to recognize in his critical discussions a strong attempt to base electrocardiography upon sound biophysical data in contrast to slower and often erroneous interpretation derived from empirical correlation of curves with pathological data.

The section on respiration comprising four chapters presents a curious mixture: a relatively pedestrian discussion of the anatomy and physics of respiration and blood gas transport, and an excellent modern, up-to-date discussion of the neurogenesis and regulation of respiration. It is unfortunate that there is no presentation of the physiological basis for modern tests of pulmonary function, including gas dilution methods for total pulmonary volume and those measuring maximum breathing capacity and respiratory reserve.

Probably an accident of timing prevented the most recent and exciting advances in the field of endocrinology from being included in the last two chapters of this text. No author should be envied the task of winnowing the enormous literature in endocrinology for material to be compressed within the necessary page limitations. The material has been well selected and competently handled.

Whether this book should be upon the general doctor's shelf is a question largely determined by the nature of his practice, his interests and his book budget. In the reviewer's opinion as a reference work it is superior to other advanced textbooks currently available in this field.

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GROVES' SYNOPSIS OF SURGERY—14th ed. Edited by Sir Cecil Wakeley, Bt., K.B.E., C.B., LL.D., M.Ch., D.Sc., F.R.C.S., F.R.S.E., F.A.C.S., F.R.A.C.S. The Williams and Wilkins Company, Baltimore, 1954. 651 pages, $7.00.

The English surgeons have a knack of putting down in carefully outlined sequential form the essential facts of clinical surgery on which future foundations of knowledge can be built. The book by Groves entitled *Synopsis of Surgery* is another excellent book meeting this purpose.

For one who wants a rapid quick summary of the essentials of the field it serves admirably well. It would be particularly good for students as an introduction to surgery. It will be less valuable as a book for the practicing physician, once he has learned the fundamentals of the field. It would also be a good review book for students and for physicians preparing for a State Board examination. This book is not great but it is clear, practical and to the point. It is inexpensive, diagrammatic and clear and can be recommended as a review book in surgery or as an introductory book to surgery, but certainly not as a text to surgery or one giving the information which will enable one to treat specific illnesses in the surgical field.

UROLOGY—Vols. I, II and III. Edited by Meredith Campbell, M.S., M.D., F.A.C.S., Emeritus Professor of Urology, New York University; with the collaboration of 51 contributing authorities. W. B. Saunders Company, Philadelphia, 1954. 2356 pages, plus 64 pages of index and 1,148 figures, $60.00 per set.

Keeping pace with the recent mushrooming growth and adaptive of emphasis in urology, Campbell's new, three-volume text adequately fills the current need for a comprehensive reference text in the English language. Written by 52 authors, predominantly American urologists, the work is a compendium of monographs by leaders in their respective fields. Appropriate consideration has been given to new frontiers in physiology, electrolyte balance, biochemistry and endocrinology, applied to urology. Approximately one-fifth of the subject matter is devoted to an excellent section on urologic surgery, abundantly illustrated and incorporating the most recent operative techniques. The material presented in eighteen sections is well planned, progressing from anatomy and physiology to a systematic consideration of urologic disorders, special attention is given the problems of infertility in the male, neuromuscular diseases of the urinary tract, urologic disorders in the female and in the child. Later sections are devoted to endocrinology, urologic surgery with pre- and postoperative care, brief mention of radiation therapy, a discussion of medical diseases of the kidney and a final chapter on the adrenals.

Doctor Campbell is to be congratulated for his exhaustive sections on congenital anomalies and the diseases of infancy and childhood condensed from Campbell's Clinical Pediatric Urology, another of Saunders' impressive texts.

The index is adequate, and the bibliographies at the end of each section are well proportioned and provide a handy key to the modern literature.

Containing as it does considerable material not elsewhere available, this text should be in the hands of every urologist, general practitioner, internist and pediatrician. While not suitable for the medical student, it should be "must" reading for every urologic resident.

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INTERN'S MANUAL (Cook County Hospital). Arthur Bernstein, M.D., Assistant Medical Superintendent Cook County Hospital, Clinical Associate Professor of Medicine, University of Illinois College of Medicine. The Year Book Publishers, Inc., 200 East Illinois Street, Chicago, 1954. 292 pages, $3.00.

This is a pocket size volume in a paper cover. It attempts to present in outline form the diagnostic features and therapeutic measures applicable to the diseases and injuries commonly seen in a large hospital. The subject matter is presented in alphabetical arrangement with cross references to prevent repetition. There is no index. This is an unfortunate omission, because the three or four pages necessary to include an adequate index would have increased the effectiveness and convenience of the manual. A manual of this size cannot be complete yet there are some obvious omissions in this one that could easily have been corrected. For example, there is no discussion of antibiotics yet there are such statements as "large doses of penicillin are indicated," or "an antibiotic or sulfa drug is indicated." On the other hand a full page is given to the discussion of Zepherin. There is no section on obstetrics and no discussion of gynecological problems.

Most interns feel the need for some means of orientation and maintenance of perspective. An outline such as this will help. For those hospitals lacking their own manual this one should prove quite satisfactory. It could also be used by the visiting and teaching staff as an outline for their instruction and teaching.

Proceedings
of the
House of Delegates

May 1 to 4, 1955

C. M. A. House of Delegates Proceedings

San Francisco, May 1-4, 1955

Sunday Morning Session

The opening session of the 1955 Annual Session of the House of Delegates of the California Medical Association was held in the Ballroom of the Sheraton-Palace Hotel, San Francisco, California, Sunday, May 1, 1955. The meeting was called to order by Speaker Donald A. Charnock, of Los Angeles, California, at 9:30 a.m.

SPEAKER CHARNOCK: Will the 1955 House of Delegates of the California Medical Association please come to order. Will the delegates move up to the tables and will the alternates please sit behind them.

We will have the report of the Committee on Credentials and Organization of the House of Delegates, Dr. Francis P. Wisner.

DR. FRANCIS P. WISNER: A quorum of delegates is present and I move that we accept the visual roll call as an indication of the constitution of the House of Delegates. . . .

. . . The motion was seconded.

SPEAKER CHARNOCK: It has been moved and seconded that we accept the visual roll call as an index of the constitution of the House. Is there any discussion? Those who are in favor will signify by saying "aye." Contrary minded? The House is constituted. . . .

Thank you, Dr. Wisner.

At this time we will announce and ask approval of the Reference Committees.

The Credentials Committee: Francis P. Wisner, Marysville, California, chairman; Donald C. Harrington, Stockton; Matthew N. Hosmer, San Francisco.

Reference Committee No. 1—Reports of Officers, Councilors, Standing and Special Committees: Dave F. Dozier, Sacramento, chairman; Thomas Dozier, Antioch; Roger A. Vargas, San Bernardino.

Reference Committee No. 2—Reports of Secretary-Treasurer and Executive Secretary, Budget and Dues: Thomas P. Hill, Lakeport, chairman; Henry Gibbons, III, San Francisco; Robert J. Moes, Los Angeles.

Reference Committee No. 3 — New Business: Helen B. Weyrauch, San Francisco, chairman; Arthur A. Marlow, La Jolla; Robb Smith, Orange Cove.

Reference Committee No. 4—Amendments to the Constitution and By-Laws: Dorothy M. Allen, Oakland, chairman; James E. Feldmayer, Exeter; Herbert C. Moffitt, Jr., San Francisco.

C.P.S. Reference Committee—C.P.S. Business: Dan O. Kilroy, Sacramento, chairman; Fred A. Olson, Fortuna; Frederick Ewens, Manhattan Beach.

May we have the approval of these reference committees?

. . . It was moved and seconded that the reference committees stand. The motion was put to a vote and carried.

SPEAKER CHARNOCK: Last year we started with a very nice custom of having the President of the Woman's Auxiliary come to address the House of Delegates: The Woman's Auxiliary and the President of the Woman's Auxiliary have been especially commended by the Legislature of the State of California in this beautiful document. It gives me a great deal of pleasure to present to you, the member from the distaff side, the President of the Woman's Auxiliary to the California Medical Association, Mrs. Frederick J. Miller, of Bakersfield.

MRS. FREDERICK J. MILLER, Bakersfield: Thank you, thank you very much, Dr. Charnock. Dr. Morrison, Dr. Shipman, members of the House of Delegates and guests: This morning I feel very much like the little colored boy who fell into the barrel of molasses, who when he looked around and realized what a wonderful predicament he was in, raised his big black eyes and said, "Oh, Lord, give me a tongue equal to my opportunity." I couldn't be more sincere when I tell you if I could pray for just one thing this morning it would be to be more eloquent so that I could do justice to the wonderful opportunity that I have.

Here I am trying to speak for the fifty-nine hundred and seventy-eight — notice that, almost six thousand—members in the Auxiliary in California, and trying to tell you in just ten brief minutes what those fifty-nine hundred and seventy-eight members have accomplished these past twelve months. Obviously that is impossible, and furthermore it is unnecessary.

Now I could make a long and detailed report of it if you were just an ordinary group of ordinary doctors; then you might not know much about the Auxiliary. Of course, you are not an ordinary group, you are the House of Delegates of the California Medical Association and that tells me two very important things about all of you as individuals and as a group. It tells me in the first place that you have a keen interest in your own county medical societies.

The very fact that you took time away from a very busy practice to come here to this convention proves that, and it tells me, too, that you are recogized as one of the leaders in the forming of policies and thinking of that county medical society and your State Medical Association. The very fact that your associates back home have chosen you to be their representatives at this important meeting proves that. Knowing those two important facts about you, your interest in medical affairs and your position as a leader, I can certainly draw this very obvious deduction—if you are that much interested in your own medical society you certainly are aware of and interested in what the Auxiliary is doing, too, because we are your partners and we are the strongest allies you have in the field of public relations.

I imagine that most of you occasionally browse through *Courier*, which is our state magazine, and which is voted annually to be the finest publication of its kind in the United States; it comes into your homes five times a year. You should read it, you know. C.M.A. thought it well worth while. It is a wonderful magazine; it tells you what we are doing throughout the thirty-two counties in California during the year.

We are given probably two pages every month so that we can tell you a little bit about what our Auxiliary is doing on the county, state and national level. I am certain that you keep up with what your home town Auxiliary is doing.

So with all that organization you certainly know what the Auxiliary stands for, what its objectives are and what we have been doing in the twenty-six years we have been organized in the State of California; for that reason this can be a very brief report and not a detailed one.

You certainly know that the Auxiliary, as I say, is your strongest ally, that we are your partners in the field of public relations, and that we have just one purpose in being organized, to help the medical profession. In this way we are not outsiders, we are not subversives; we are your own wives. When we stood up to love, honor and cherish you we also promised to love, honor and cherish your medical profession too, so that we are really your partners, not only in private life but in the Auxiliary.

We are not a militant organization, we are not a pressure group, and you wouldn't want us to be. We would cause you harm and embarrassment if we were, but in our own quiet, ladylike way, through study groups and open health meetings, we can and do exert quite an influence upon the thinking and attitudes of nonmedical friends.

The second thing we are not—we are not primarily a fund-raising organization. Yet every year we raise around sixty to seventy thousand dollars up and down the state in our county auxiliaries, which gives us funds for some very worthwhile projects like the nursery equipment. Every year some sixteen thousand dollars in scholarships are used to arouse increased interest in the young women in nursing as a career. We also worked very hard for the Medical Foundation this year; our check will be somewhat over five thousand dollars and we still have several counties to hear from.

We also worked hard to raise funds for your Physicians' Benevolence Fund and our check will be for three thousand seven hundred and forty dollars. We still have five counties to hear from and it may be a little more.

In these activities it is not the money that is important. We don't think the figures we quoted are very impressive, the little more than five thousand dollars we give to C.M.A. It isn't the money itself that is important, but in raising it we get some very valuable and important by-products. When we work together to raise this money we become better acquainted and when we become better acquainted we become better friends, and friendliness among ourselves is very important. Doctors' families ought to be friendly; the things we have in common and the things that bind us together are more important than the little jealousies that tend to drive us apart. It gives us publicity; we again are written up in the home town paper. Every bit of good publicity goes for the whole medical profession because we are so closely identified with you.

The third by-product is that we ourselves are learning a great deal. We learn why there is a shortage of nurses and why we as doctors' wives must strive to increase their number. We learn a great deal about the Medical Education Foundation; we know what it is, what it does, and know why the medical schools must get their money through donations. The money itself is not the important thing.

I have told you what we are not, not a pressure group, not a fund-raising group; very simply, we are a community service organization. Every year our members give their time, their talents, their money and their energy to making their own communities a better place in which to live and if I were to tell you the wonderful things this Auxiliary has done during the past year, twenty-six years in fact, that would be a much longer speech than you could tolerate. We will sum it up in this one phrase, Community Service. It is what we are organized for, the thing that is always the ultimate goal in everything we do. There again the same by-products prevail, tend to develop, to create good public relations for you.

Can't a doctor's wife perform community service by being an Auxiliary member? Certainly she can; many of them do and we are proud of them. There is this thing about working as an auxiliary—as an organized group, every bit of service we do as an auxiliary reflects back upon the whole medical profession.

We are identified with medicine when we do these community service projects as an auxiliary, therefore it is very important that your wife and the wife of every doctor should be an auxiliary member. We have just about six thousand members, but you have over twelve thousand. You have forty county medical societies; we just acquired Auxiliary No. 32 just a couple of weeks ago in Merced. That is only 78 per cent. We need to have the other eight counties organized and need to get the other wives who should be and are not members.

We have to depend upon the cooperation of the doctors too. We alone cannot do it; it is your influence that is so very important. The whole thing can really be summed up in this one phrase—good public relations for you through community service by us; that is the sum total of our objectives and our organization.

Before I close I'd like to express a word of thanks. I think no State President was ever blessed with a finer State Board; the members have been simply wonderful. The county presidents have been most cooperative and helpful. Officers of C.M.A. Advisory Board, Mr. Hunton, Mr. Thomas and Mr. Gillette over at the C.M.A. office, and the girls there have been most cooperative and just delightful to work with.

I'd like to say just a special word of thanks to the Auxiliary and county organization of Kern County. I can't begin to say how wonderful they have been to me all year; they have furnished the inspiration to make this a good year.

I think the President's husband, as always, is a forgotten man, and he stays home and keeps the home fire burning while I run around for eighty-five days as I have done this year. If it weren't for his good nature and patience, this would not be possible.

In closing I speak for the five thousand nine hundred and seventy-eight members in California when I tell the organization that we are very proud to be doctors' wives, very proud to be members of the Auxiliary to the California Medical Association. We hope you are just a little bit proud of us, too.

PRESENTATION OF FIFTY-YEAR PINS

SPEAKER CHARNOCK: Thank you, Mrs. Miller. I am sure we are all proud of you and all proud of the magnificent work the Woman's Auxiliary is doing.

It is now a very pleasant duty to announce the presentation of the Fifty-Year Pin Award, and that will be done by your distinguished President, Dr. Morrison. I think we should have these people line up in front, Dr. Morrison.

PRESIDENT ARLO A. MORRISON: Will these gentlemen, if they are present, and ladies, please come forward? H. V. McNeil, Dr. Molony is going to accept his pin in absentia. John M. Wilson, Stella M. Zimmerman, Los Angeles County. From Monterey, Dr. Garth Parker; San Bernardino, John H. Shreck, and that will be accepted in absentia. From San Francisco, Milton Lenin, Harry Robarts and Hugo Wall. From Solano, Robert B. Dempsey; and from Stanislaus, Fred DeLappe. From San Bernardino, Dr. Carl Wente will accept the pin for Dr. Shreck. Will these gentlemen please come forward. Dr. Molony is accepting for Dr. McNeil.

DR. WILLIAM R. MOLONY, SR.: It gives me a great deal of pleasure to accept this fifty-year pin in the California Medical Association for Harvey McNeil. Harvey and I graduated together in Los Angeles in 1901. I entered the Association a year before he did, so that I got my pin last year. It is a real pleasure to accept this for him this year.

PRESIDENT MORRISON: Next is a gentleman who has been with us for fifty years, Dr. Fred DeLappe from Stanislaus County. Dr. DeLappe, I present you this pin.

DR. DELAPPE: Mr. President, I thank you very much, and the House of Delegates who have been so kind as to bring me this honor. I graduated in 1897 and have been in continuous practice until 1952. I thank you.

PRESIDENT MORRISON: Next is Dr. Garth Parker, from Monterey County—Dr. Parker.

DR. GARTH PARKER: Thank you very much.

PRESIDENT MORRISON: Next is Dr. Robert B. Dempsey, of Solano County.

DR. ROBERT B. DEMPSEY: Thank you, gentlemen.

PRESIDENT MORRISON: From San Francisco we have Dr. Harry Robarts.

DR. ROBARTS: Thank you.

DR. MORRISON: Dr. Carl Wente will accept the pin for Dr. Shreck, from San Bernardino.

DR. CARL WENTE: I may add about Dr. Shreck that he graduated from school in 1888, practiced in Illinois in 1889 to 1899, and came to Redlands, California, in 1902 from which time he has been a member of our association. The county society's records for the previous three years are not obtainable so that we have the record of his being present only since 1905.

SPEAKER CHARNOCK: Thank you, Dr. Morrison. At this time we will do honor to our Past Presidents; quite a group of them are here today. As you know, they sit in the house as members of this House and I should like to have them stand up, those of them who are here.

First Dr. Edward N. Ewer; he was president in 1925. Dr. Lyell C. Kinney, Dr. Junius B. Harris, Dr. Reinle, Dr. Peers was president in '35, Harry H. Wilson, Dr. William R. Molony, he was president in '42.

Dr. Karl L. Schaupp, Dr. Lowell S. Goin, Dr. Sam J. McClendon, Dr. John W. Cline, Dr. E. Vincent Askey. Dr. Askey is starting out all over again; he is a national delegate from Los Angeles, so starting all over on routine again.

Dr. R. Stanley Kneeshaw, Dr. Donald Cass, Dr. H. Gordon MacLean, Dr. Lewis A. Alesen. I saw Dr. Alesen just a week ago; he has been ill but he said to bring his best regards to you all. He didn't think he would be able to be up at this meeting; he was busily engaged in writing letters about the Bricker Amendment. The little man might be down at the moment but he is far from out.

Dr. John W. Green—I think we all owe a great debt of gratitude to the past presidents and the interest that they have shown in the organization.

At this time we have a few announcements to make. We welcome the press here today, there are members from the press here at the meeting and we welcome them to our deliberations. The C.M.A. office is in Room A. The Reference Committee rooms have already been assigned, with Reference Committee No. 1 in Room 2005, Reference Committee No. 2 in Room 2051, No. 3, the English Room, Reference Committee No. 4, in 2006, and the C.P.S. Reference Committee room is 2127. I should like to see the chairmen of each of these committees at the noon recess.

At this time it is nice to welcome all the delegates and alternates who are coming for the first time and I should like very much if all the delegates who are making their maiden appearance before our House of Delegates would please stand up. . . . Applause.

The resolutions which will be introduced this afternoon we are asking you to present in five copies, please, typewritten if possible. Stenographic service is available in the C.M.A. office room.

And at this time I should like to announce that caucuses for the First, Fourth and Seventh and Tenth districts will be held at noon today. The First District will meet in Room 3007, the Fourth District, Los Angeles County, will meet in this room at the noon recess. The Seventh District will meet in 2012 and the Tenth District, if they will let us know where they will meet we will announce it.

It is very appropriate that at this time we have a report by our President. For two years our President has been busily engaged in going to all parts of the state and meeting with all the county societies. He wants to bring you a report of his activities and it is a great privilege to be able to present our President, Dr. Arlo A. Morrison. Dr. Morrison.

[*Dr. Morrison's report was published in* CALIFORNIA MEDICINE, *June, 1955, pages 421 to 425.*]

SPEAKER CHARNOCK: Thank you very much, Dr. Morrison. We have a little special surprise for Dr. Morrison. I have here a picture of the California Medical Association meeting at Del Monte in 1899, and really it is a fine group of 29 distinguished gentlemen. Here it is.

This is interesting to Dr. Morrison because Dr. Cephas L. Bard of Ventura, who was president of the California Medical Association in 1897, is a member of this group. Dr. Morrison, we present that to you.

We have a couple of announcements now to make. All doctors and their wives are invited to the Auxiliary reception this afternoon between 5 and 7 in the Rose Room, honoring Mrs. Arlo Morrison. Tickets to the President's Dinner are on sale in Room A.

The Alameda-Contra Costa delegates and alternates will hold a caucus in Room 2127 at the noon recess.

VICE-SPEAKER WILBUR BAILEY (Los Angeles): We have further reports to what we have published in your preconvention bulletin which we will not read. There are some additions. On page 9, Report of the President-Elect, no addition. Report of the Speaker and Vice-Speaker, no addition there.

Report of the Council, by Dr. Donald D. Lum.

DR. DONALD D. LUM: Thank you, Mr. Speaker. A very short supplemental report will be in the form of a resolution to be entered this afternoon and a budget to be presented by the chairman of the Auditing Committee, Dr. Ivan C. Heron.

VICE-SPEAKER BAILEY: That will be referred to the proper Reference Committee. Next we will have the Report of the Legal Counsel, by Mr. Hassard.

MR. HOWARD HASSARD: Mr. Speaker and Members of the House of Delegates: There are several legal decisions subsequent to our printed report that appears in the preconvention bulletin that seemed worthy of presenting to you briefly this morning.

The first one involves the subject of group prepaid practice of medicine and it is a decision of the Judicial Council of the American Medical Association in a case involving one Dr. Landess of New York. Dr. Landess is a participating physician in the prepaid plan in New York City known as the Health Insurance Plan of Greater New York—HIP. HIP is not, strictly speaking, a closed panel plan; it has to be defined as an open-closed panel plan, or like a tall-short man. It is closed in the sense that subscribers to it may only receive their care from participating groups of physicians. It is open in the sense that any group of physicians practicing in the New York area in the group form may contract with HIP for the rendering of service. Dr. Landess belongs to such a group practicing in Jamaica, Long Island.

Dr. Landess was charged by his county medical society with unprofessional conduct in that HIP advertises in the public press in New York City and the theory of the charge against him was that any advertising by HIP constituted by indirection advertising on his part and on his behalf. His county medical society and state medical association both upheld disciplinary action against him.

He then appealed to the Judicial Council of the American Medical Association, which in February of this year reversed the decision of the state and county societies and in doing so stated as follows, and I am quoting from the Judicial Council of the A.M.A.: "Since on the record before us HIP is organized and operates in accordance with law and may lawfully advertise, since the quality of its advertising is not an issue, and since Dr. Landess had nothing to do with the preparation or distribution of the advertising, it is our opinion, contrary to that of the State and County Medical Society, that the conduct of Dr. Landess does not violate the ethics relating to solicitation and advertising."

The Judicial Council then pointed out that Dr. Landess' name did not appear in any of the ads, the advertising was for HIP in general, not for any of its participating physicians; it also pointed out that it was not passing upon any other ethical principles that might be involved in the relationship between HIP and its physicians, but solely upon the issues that were presented, charged against the doctor, that is, of the newspaper and other type of printed advertising.

The second case that I think is worthy of bringing to your attention—many of you already know about it because we have had many inquiries—is a tax decision. It is a case that arose in Montana, was recently decided by a Federal court and involved the question of ability of a medical group to obtain a pension plan on a parity with employees in business and industry generally.

As many of you know, under our tax laws a corporate business entity may embark upon a pension plan for the benefit of its officers and employees and the premiums for such pension plan are a deductible business expense so that in net effect the cost is tax free. As you know, self-employed people such as physicians, attorneys, dentists, and others in the self-employed category, or groups of professional people who practice in a partnership form, may not do this; the law does not permit them to purchase an annuity or any form of saving for the future and deduct the cost from their income taxes.

I think that many people will agree that that is manifestly discrimination and manifestly unfair but to date Congress has not seen fit to extend to professional people who are self-employed the same opportunities to save for their older years that is granted to employees both in management and labor and industry generally.

Back to the case. A group of physicians in Montana took advantage of a peculiar section of our Federal Income Tax Law that was never designed for this purpose but ingeniously it was used. In our Federal Tax Law there is a provision that a partnership may be taxed as a corporation if in fact it operates similar to a corporation, that is, if it has a board of directors, if it has transferable interests, limited liability and various other attributes of a corporation. In tax language such a partnership is called an association.

This medical partnership in Montana organized as an association and then claimed tax status as a corporation and claimed that its partners were actually officers and therefore employees and that therefore it could have a pension plan and that it could deduct the premiums for that pension plan from its taxable income. The Federal Court held yes, that that was so, that it could do so, and it could deduct the cost of annuities.

The case is in effect a freak; it is one to be followed with the utmost of caution, and it involves collaterally the question of law and ethics with respect to the manner and form in which one practices a profession. However, the most important part of it is that it focuses attention on the inequity that now exists in the law, that it denies to all of you an equality with others in our community, the ability to provide for your older years without having to pay a tax on your savings.

The third and last case that I desire to bring to your attention was just decided this last Friday by our California Supreme Court and I am presenting it as an oddity of the law. As you have all doubtless experienced, in a personal injury suit frequently the defendant desires to have the plaintiff, that is, the complaining person, physically examined by a physician in advance of trial in order that the defendant may ascertain and have some knowledge of the actual extent of injuries.

In recent years there have frequently been disputes or controversies when such a physical examination has been ordered over the question of whether or not the attorney for the injured person, the plaintiff, has a right to be present while you examine the patient. Then in a recent case a test was made of this point of this issue, and the issue went to our California Supreme Court which rendered its decision last Friday. I will summarize parts of it and read a little part of it to you because I think you will find it is most startling.

This particular case involved a lady plaintiff; a court order required her to submit to a physical examination by a physician appointed by the defendant. She showed up for the physical examination accompanied by her attorney and refused to proceed any farther unless her attorney was present. The physician refused, whereupon the trial court ordered the plaintiff to submit to the physical examination in the privacy of the physician's office without anyone being present.

That order was appealed to the Supreme Court. The Supreme Court first agreed that the defendant has a right to obtain a physical examination and then it proceeds to say this, "The doctor should of course be free to ask such questions as may be necessary to enable him to formulate an intelligent opinion regarding the nature and extent of the plaintiff's injuries but he should not be allowed to make inquiries into matters not reasonably related to the legitimate scope of the examination. Whenever a doctor retained by the defendant conducts a physical examination of the plaintiff there is a possibility that improper questions may be asked, and that a lay person should not be expected to evaluate the propriety of every question. The plaintiff therefore should be permitted to have the assistance and protection of an attorney during the examination.

"It is argued that an attorney by making groundless objections may hinder an examination, thereby depriving the defendant of the benefit of an informed medical opinion. The plaintiff, however, should not be left unprotected on the assumption that an attorney will unduly interfere with the examination. Should such interference occur, appropriate steps may be taken by the Court to provide the doctor with a reasonable time to complete his investigation of the nature and extent of any injuries this plaintiff may have sustained."

The Court then reversed the decision of the trial judge to allow the attorney to be present during the examination.

In this particular case the examination involved was a pelvic examination.

VICE-SPEAKER BAILEY: As a matter of fact your last comment covered the question everyone had in mind.

Next we will go to Item 21, Report of the C.P.S. Board of Trustees, by Dr. Hodges.

Dr. Hodges: Mr. Speaker and members of the House of Delegates: I am well aware of my own aversion to columns of figures and my impatience with statistics; I shall plague you as little as possible with these. It is my hope, however, that I can impart my feeling of enthusiasm in reference to the accomplishments of California Physicians' Service during the year just concluded. It is a significant year; the important agency you established to aid in the solution of the knotty problem of medical economics has not been idle.

It is the heartfelt wish of your Board of Trustees and the administration that it has acted always wisely in your behalf. Even more important, in discharging our duties we have been impressed increasingly with the original purpose of the foundation, that the purpose should be to offer an adequate method of paying in advance for the cost of illness. We hope most earnestly that we have acted also in the public's behalf, as our state's physicians would have us do.

Were it not to the advantage of those who chose to be our subscribers C.P.S. would have no excuse for existence. Your Board has labored mightily and long. I find that, fortunately, from many branches of medicine and from the laity you have developed its composition and you may be assured that your elected members have acted for you only after deliberation and sober thought.

It is to be expected that your confreres will serve for you on the basis of their normal community duty but you and I are also deeply indebted to the laymen on our Board who, with no personal axes to grind, have brought to us their energies and talents. Let me call their roll.

Msgr. O'Dwyer, eminently fitted because of his responsibility with Catholic charities, additionally qualified as a member of the Blue Cross Board, an experienced and wise advisor; Thomas Hadfield, who brings to us his association with the great insurance industry. It takes little imagination to conceive of the value to C.P.S. of his insurance know-how. Countless times he has brought us to earth by his sound business counsel, based upon all the years of trial and error of his own great business; and

Ransom Cook, senior vice-president of the American Trust Company. You may remember his excellent address to the House of Delegates two years ago. If you detected his gift of analysis then, think of what his return to the Board has meant to us this past year.

Robert Hornby, executive vice-president of the Pacific Lighting Corporation. Mr. Hornby personifies the bird dog of industry; he is not content to accept as fact that which is presented to him—he has to examine it, he must test it, he must prove it. No rotating rock within his jurisdiction rests secure from overturning and examining. Furthermore, he is an expert on labor relations and labor's aspirations in the field of security.

The late Carey Hill, respected investment counselor, of Los Angeles. His absence will be conspicuous, for although not well, he labored ceaselessly to learn all possible about our profession, the better to act for it in the complicated business of medical cost prepayment. Despite his ailing heart he spared no effort to serve C.P.S. whenever needed.

You know much more of the physician members of your Blue Shield Board of Trustees; they are dedicated to C.P.S. principles and serve gladly for this cause which is by nature their own. But we owe a deep debt to our lay trustees; they have conveyed to us, and accurately, the desires of the public. They have shepherded our funds, our reserves so that fees to the doctors and benefits to the subscribers could be realized to the maximum; by their countless committee meetings and their board meetings since, they have brought us balance.

It is time also to express our gratitude to Dr. Frank MacDonald of Sacramento, who now leaves the Board. He has chaired the fee schedule committee of the Board and has been a tireless and valued trustee for six years. He will be missed.

A few years ago it had been felt that C.P.S., a natural child of C.M.A., had lost contact with its parents. For this reason three members of the C.M.A. Council ever since have been appointed to the Board of Trustees. The result has been fortunate in the extreme; the benefits are too many to enumerate. All deeply desire that these aims shall continue.

Your whole Board, by profound study of it, have more information on the subject of medical cost prepayment and have, I believe, qualified themselves as informed students of this field. There is not a dilettante among them. Incidentally, it should not go without mention that last year one of C.P.S.'s indefatigable workers and former presidents, Frank Doughty, died in Tracy of a heart attack. You all remember his devotion to this cause.

We are vastly encouraged by the ever-growing support accorded Blue Shield by our physicians. More doctors are members than ever before. As of March 31, 1955, there were 12,256. This is a vast majority of those in practice. The greatest number of newly licensed physicians become members at once; resignations are at a new low point and a substantial number of those who have resigned have once more, upon application, been reinstated. This demonstration of confidence in C.P.S. and its method of operation is encouraging to those who have loyally supported it through its years of trials and tribulations and through its errors. This support has been expressed in more tangible ways; more and more we have found physicians interested enough to appear before groups of potential subscribers, campaigning for their plan and explaining it to those who desire effective prepayment coverage. We can attribute our success in enrolling numerous groups to the selfless efforts of these many doctors.

The development of special programs for different county societies, the establishment of committees within county societies to review unusual claims, the extension of the program of decentralized contact with physicians, the closer relationship between C.M.A. committees, such as the Medical Services Commission, with representatives of C.P.S., all have resulted in a better understanding of the overall needs in this field of prepaid medical care.

Many leaders of the medical profession and literally thousands of doctors now realize that there must be an organization such as C.P.S. if they are to be adequately represented at the bargaining table. It is true that some physicians do not favor the principles of C.P.S., who doubt the wisdom of its formation, and some even feel now that it should be drastically curtailed. These men are sincere in their conviction, are far fewer in numbers since the correction of a number of past defects, and many are convinced that such improvements have rendered C.P.S. a much more effective instrument in the field of medical economics. The physicians' relations department is working diligently there to win those whose resentment may be based upon misunderstanding. The Board is equally as desirous of changing the policy so that there may be no false basis here for lack of support.

Every effort must be made also to maintain our public relations at the highest possible level and those in administration charged with these duties are directed to this end, but we all realize that the most competent public relations agent is the enthusiastic, satisfied, practicing physician of the subscribing membership.

Our total number of beneficiaries continues to grow, as was to be expected in a rapidly growing state. Subscribers numbered 700,096 on March 31, 1955, an increase of 10.95 per cent for the year. Our dollar income is at the highest level in our history, that has enabled us to liberalize benefits, to pay on an increased fee schedule, to pay the increased fees to physicians effective since January 1, 1954, and to maintain our vital reserves within the range advocated by the National Association of Insurance Commissioners.

To show that this financial stability maintenance is solid evidence of sound management, operating costs are the lowest in the history of C.P.S. The most recent estimate of administration expense is 9.3 per cent, is most favorable as compared with other Blue Shield plans, and most favorable as compared with our experience of a few years ago when operating costs were as high as 17 or 18 per cent.

Relationship with Other Blue Shield Plans. This of course is becoming important since more and more nationwide industries, unions and other groups are seeking means of covering these groups by medical and hospital prepayment plans. The preparation of federal legislation to provide for contributions on the part of the government and payroll deductions to finance such coverage has again emphasized the need for unified action by all Blue Shield plans. Those two and a half million employees could thus be retained within the private or free practice of medicine and California has the largest stake of all, not excepting the District of Columbia.

Your president and members of the C.P.S. management have been active in working with the Blue Shield plans in the eleven districts on the Pacific Coast as well as other Blue Shield plans throughout the nation. There has been active participation in the management of Medical Indemnity of America, the insurance company owned by the National Blue Shield, and California has been represented on the Blue Shield Commission by two of its doctor members. At a recent meeting in Chicago your president was elected vice-president of the National Blue Shield Commission and every effort is being made to work harmoniously with these other plans on national programs that indirectly affect conditions in each of the various states.

The Development of New C.P.S. Contracts. No more intensive study has taken place than that by the Contract Committee under Dr. Reynolds' administration, and by the Board of Trustees. This commission determined to offer California organized group contracts which would better consider their individual needs and borrowed from Oregon the building block principle. A basic uniform contract with broad standard benefits is the foundation. Other building blocks with certain units of extended coverage may then be appended so that the negotiating agency can tailor its master contract to its need and the funds available. Offering of these new group agreements will be determined by the specific need of each organization considered.

C.P.S. Protection. Our contracts are making friends for C.P.S. A similar contract has been provided for sale to individuals who do not qualify for coverage under group contracts, a long felt need. Broadened benefits and rates that are not materially increased make this a good buy. It is at first being offered in selected areas where county societies specifically request its sale. Principles will be closely studied and we hope it will demonstrate the physical soundness of this type of coverage.

Similarly, the Contract Committee has recently approved of broadening the benefits and increasing the coverage of direct pay contracts. It is possible for a member of a group who leaves that group for any reason to continue coverage within C.P.S. as long as he may live. This represents at least a small effort by medicine to help the aging to solve their problems.

Incidentally, the attitude of the new printed contract is revealing; it is as foolproof as it can be made. There is no small print in the margin. There is an explanatory column entitled, "Benefits Defined." There is a growing demand for a major illness expense contract that will cover 75 per cent of medical, surgical and hospital bills after the benefits in the base contract are used, with a total dollar limitation high at $7,500.

We will report to you the availability of this important protection against major expense of serious accident or prolonged illness at an early date.

Sale of Indemnity Type Insurance. It will be recalled that the California Physicians' Service organized an insurance company known as the California Physicians Insurance Corporation on the recommendation of this House of Delegates. C.P.S.-Blue Shield has been requested by the House of Delegates to work only with those county societies requesting that this form of indemnity insurance be written in those counties. Within the past few months two counties have made such requests and C.P.S. staff members are now working with authorized committees of these county societies.

The activities of this insurance company may be extended as needs require.

Local Area Programs. As physicians have become increasingly faced with the problems that make covering for sickness cost necessary, they have also been aware that the perfect plan has not yet been devised. This has led them to search for a solution based upon the need they find in individual areas. We find that sort of research in the Palo Alto Regional Plan, in Long Beach, Santa Clara County, San Pedro, San Joaquin County, and elsewhere. This is a trend worthy of consideration.

It is the policy of the C.P.S.-Blue Shield to operate with any groups on local competitive or other problem, and to aid them in developing contracts and plans likely to meet these local conditions within the framework of the C.P.S. structure. Even where the results of such study may not have been a new type of contract we have found the greatly stimulated interest of the physicians has created new knowledge of this difficult field, for the principles and standards, if they are a clearly defined set, are often illusive and defiant of comprehension. These newly self-informed doctors have been a great aid in accelerating progress in this field.

One phase of this area development has been the adoption of the $6,000 income ceiling with the appropriate Fee Schedule B, in counties where either C.P.S. contracts with a $4,200 or $6,000 income ceiling and/or both was essential. It is remarkable that the C.P.S.-Blue Shield organization has proved effective in developing programs where contract benefits vary, where there are multiple income ceilings and dual fee schedules. Should a $6,000 income ceiling be adopted statewide there still remain many problems confronting county societies which will only be resolved as plans are tailored to fit the differences as they now exist.

At a recent meeting of the Trustees of C.P.S.-Blue Shield this policy of working closely with any county society having problems different from other areas was reaffirmed. It was hoped that the carrying out of this program will make possible the rendering of even better service to the people of the various areas and the physicians who are seeking solutions to their ever-changing problems of financing the cost of medical, surgery and hospital care. At the same time it is realized that there must be sufficient uniformity to avoid confusion and inefficiency of operation.

Broadened Field of Special Services. Dr. Morrison has alluded to this in his address this morning. It may well be that this year in the widening of our growth potential for service to physicians and to the public, the existence of a body like C.P.S. makes it possible for organized medicine to offer a program to varied groups who might otherwise be forced to look elsewhere. There is an obligation peculiar to our profession to assure our consumers that they shall be able to avail themselves of our essential services. This is a polyglot field but C.P.S. can be the instrumentation.

The first example is the Veterans Home Town Care Service. Blue Shield has retained for private practice the ambulatory veteran with a service connected disability. It has required a continuing effort on the part of the administration to do this, for the contracts with the Veterans Administration are renewable yearly. Because of this effort we anticipate contract renewal on July 1 with a substantial increase in the fees paid to physicians.

An increasing load of indigents in the state has brought into sharp focus the need of devising new methods of serving them most adequately within the amounts available from their contracts. The Medical Services Commission has assisted in a program for caring for them and your Board of Trustees has approved it. Thus it can be shown vast savings can be realized, duplicity of new hospitals can be avoided, and the existing structure of medical practice maintained. One rural county alone estimated an annual savings of $48,000. Requests have been received from Imperial County, Orange, Riverside, Sonoma, Santa Cruz, Marin County and others for C.P.S. to develop suitable programs. It is anticipated that we can do that on the basis of financial soundness and a fair return to the doctor.

Because of a bill now before Congress to provide for the tendering of care to dependents of servicemen by private physicians, the staffs of C.P.S. and other western plans are consulting so that we may offer suitable contracts. You are aware of the work of Dr. Lambertson and his committee in studying the problems of financing medical care for the aged. Blue Shield has been in contact with him, aiding in the development of some workable plan. Many large employers are bound to include their retired people in their health and welfare programs. C.P.S. has seen the possibilities in such groups.

Coverage of the unemployed is another field C.P.S. feels it should explore. Conditions are such at the present that serious study should be made and a plan evolved so that the health needs of these people may be paid for when needed.

We have entered into the area of contracts covering students of several colleges and the program has been working most satisfactorily. People at medical societies themselves have required such programs and have sponsored them. There is a demand for an extension of this type of operation and wherever the local profession desires this we are ready to underwrite such plans. It might be observed that young persons of impressionable age, some inexperienced in individual private practice, are shown by example something better than this corporate practice they find in some institutions.

Conclusion. As I view the overall picture of C.P.S.-Blue Shield I see its potential for usefulness vastly increased. I anticipate a period of broadened service, never conceived of by its founders. I feel that our increased capacity for rendering a service both to our profession and to the public should not escape our notice. Through your own plan which is ably administered under the most effective public relations now within your grasp, one that no amount of canned campaign can touch, with your enthusiasm and your support C.P.S. can succeed mightily, not by being a reaction against something, but as your own unbeatable leader in a field that should be your own. Thank you.

VICE-SPEAKER BAILEY: That report will be sent to Reference Committee on C.P.S. Business—this very encouraging and well done report by Dr. Hodges.

Now the Chair proposes to deviate from the usual order of business, a deviation which will require the unanimous consent of the House. Dr. Malcolm Merrill, State Health Department Director, regularly meets with the Council and the Council has requested him to report to the House of Delegates on the polio vaccine problem. The Council appreciates the fact that Dr. Merrill has kept in touch with Dr. West and others of our group. I believe there would be no objection to introducing Dr. Merrill at this time. If there is no objection, I will present our old friend, Dr. Merrill.

REPORT ON POLIOMYELITIS VACCINE

DR. MALCOLM H. MERRILL: Mr. Speaker, members of the House of Delegates: Last Tuesday morning at 10:30 a.m. we received a telephone call from Dr. Walter Ward of the Cutter Laboratories advising us that they had just received word of a possible case of poliomyelitis up at Napa in a child who had been vaccinated a few days before with Cutter vaccine. He also indicated that they had a comparable type of report from Chicago, concerning a child who had been inoculated there some five or six days previously with Cutter vaccine. This immediately started in motion a rather extreme search on our part as well as on the part of Cutter Laboratories for possible other cases.

Within a few minutes we had additional reports of two cases in San Diego and within two or three hours we had a report of a case in Ventura, and a suspected case in Children's Hospital here in San Francisco.

By evening we had what appeared to be six bona fide cases. We had in the meantime asked Dr. Edward Shaw here in San Francisco, together with members of our staff, to go into the clinical manifestations of the Napa case, and serve as consultants to our department to help us look into this case. We also began an immediate investigation of the suspected case in San Francisco and of the case in Oakland. By late evening it seemed clear that we had six bona fide cases, varying in duration of onset from five to seven days from the time of inoculation, with a clinical picture that was rather constant in appearance of paralysis first in the inoculated limb.

We had been in contact throughout the day with the National Institutes of Health, alerting them within a few minutes, as had Dr. Ward, of the time of the announcement of the first case. By midnight the pattern was sufficiently clear that we as a State Health Department were prepared to recommend to the National Institutes of Health that they give serious consideration to the possibility of withdrawal of this vaccine. Their deliberations carried throughout the night and by 8:30 next morning we had Dr. Ward's and Dr. Cutter's request for the temporary withdrawal of the vaccine from the market. Since that time a most intensive hemological study has been made and most intensive search has been made of possible additional cases that may have occurred.

Up to this time—and I am depending partly for my assertion on the epidemiology that has been done by the press throughout the nation—it would appear we had some 32 cases in which there was a previous history of an inoculation of certain batches of this vaccine. Seventeen of these cases have occurred in California. To give you a rundown, there are five cases now in San Diego, six in Los Angeles, one in Ventura, one in Napa, one in Riverside, one in Stanislaus County, and two in Oakland.

We immediately began trying to figure out what is the denominator as it occurs epidemiologically. That is, how many children in California received the vaccine. We still don't know the answer but it appears somewhere in the neighborhood of 200,000 of these children have received Cutter vaccine, the first dose of Cutter vaccine in California. This number of approximately 16 or 17 cases is somewhere in the neighborhood of one case per 12,000 inoculations.

You may be interested as to the next point in knowing what happened to the polio incidence throughout the state this year, the totals. That is an important consideration for us in trying to determine whether or not the vaccine really had anything to do with the production of the paralysis in the reported cases. There has been a lessening of incidence in the past three years. In 1953 up to the second of March we had 495 cases; in 1954, 366 cases; 1955, 198 cases. During the month of March of this year we had 54 cases reported. In the succeeding four weeks these are the reports that came to us—the week ending April 5, seven cases; April 9, eight cases; April 16, nine cases; the week ending April 23, 16 cases; and in May, 16 cases.

We have had experience, then, of rather low incidence throughout the year thus far.

The next question you may ask is how many cases have there been during the past week that have not been inoculated. These data are incomplete because we are getting telegraphic and telephonic reports on cases that had been inoculated. Up until the last day or two we have not been getting reports on such cases up to this moment. We had three noninoculated cases last week and one additional perhaps suspect, but we won't know for a few days yet just what is the picture in uninoculated cases for the past week.

Another question we are vitally concerned with is what is happening with other vaccines throughout the country. We have been in communication with the Public Health Service, National Foundation for Infantile Paralysis, antibiotic and pharmaceutical houses, and most of the state health departments. This morning we had information on one case in Georgia, onset within three days of inoculation with Eli Lilly vaccine, one in Houston, Texas, which we do not have details on as yet, and there are two Louisiana cases. There have been a number of additional cases in Oakland with Cutter vaccine. From outside the state, at least, ten in Idaho, one Chicago, 21 in St. Louis, one in Denver, and one in Washington, and the questionable two in Omaha, giving us at this time what appeared to be 32 cases.

Indications are that some three and a half million children at the minimum throughout the country have been inoculated with vaccine since it was released on the 14th. Actually it was the 15th or 16th before it actually got into the market at school inoculations, and some three and a half million people have been inoculated since that time. We don't know exactly; these have been done in some 28 states plus the District of Columbia and Hawaii. This is the only apparent break that has come to our attention, with the exception of the three or four cases that I mentioned.

With this information a rather clear cut picture emerged and on Wednesday morning there were news releases issued by the National Institutes of Health, by the Cutter Laboratory and by our department simultaneously. Telegrams went to all local health officers to discontinue further inoculations with Cutter vaccine. You will recall Cutter vaccine was distributed to all counties in the state—Stanislaus, San Joaquin, and all counties of the south. Another vaccine was distributed here in northern California and that vaccine came to us a week later than the Cutter vaccine.

We did not request discontinuance of immunization with vaccines other than the Cutter product until after a meeting with our Polio Advisory Committee on Friday. That committee, as you probably know, is composed of a public health committee in addition, so there are some 18 members on the committee. Three members are from the Council of the C.M.A., three members who constitute the Public Health Committee that works closely with our department. We met with that committee for a rather prolonged meeting on Friday afternoon and out of that meeting came several specific recommendations which have been publicized in the press and you have probably seen them.

We did not recommend the use of gamma globulin to the inoculated children. We recommended that the children receive continued observation, that on any abnormality appearing their family physician be immediately contacted, that they adhere to the general policies that we give during polio epidemic seasons of avoidance of excess fatigue or chilling or excess exertion. One additional recommendation was that any elective surgical procedure be delayed for a minimum period of three weeks, and finally it was recommended there be a temporary suspension of all polio injections in California until further notice and a period of one week was mentioned in the recommendation of the Advisory Committee.

When we took this action for a suspension, the situation was quite confused. By afternoon, in some respects, we had incomplete data of what was going on throughout the rest of the country. There was in session at these same hours a meeting of technical advisors to the National Institutes of Health in Washington. Our committee felt they were desirous of having the regulations that come out of the Technical Committee before they wanted to agree to the continuance of the inoculations in California.

Careful study now is being made of any recommendations that have come out of that committee and it is hoped there can be an early announcement of the resumption of vaccination in California. In this morning's news releases I notice that California and Vermont are the only two states in the nation that have temporarily suspended inoculations.

The rather confused situation here the last few days we feel is ample justification for the action that was taken and recommended by our Advisory Committee and taken by the Department.

Now a word about the supply of vaccine. You will recall that there was a week's delay in our getting enough vaccine in the northern California area. What has come in is distributed and available to all local health departments. With the withdrawal of Cutter vaccine we needed to replace that. The replacement vaccine arrived yesterday and is now on hand for the continuance of the first injections of the first and second grade children. It is anticipated that there will be an adequate supply to continue the second injections when they become due.

I am sure you are interested in what the anticipated supply is nationally and is expected to be nationally. When there were six producing companies, that is, before the Cutter material was temporarily withdrawn, it was anticipated there would be enough vaccine available very soon after May 1 to take care of the 8,600,000 children in the first and second grades, countrywide. It was felt certain that by May 15 it would be available and we were advised that somewhere around May 15 or soon thereafter vaccine would again be appearing through the commercial channels.

By June 1 it was anticipated there would be enough vaccine nationwide for 16 million injections, enough to cover 40 per cent of all the children in the one-to-nine-year age group; by July 1 some 25 million doses, enough for some 25 million inoculations, which would cover approximately 75 per cent of all children between one and nine years of age.

By August 1 it would be anticipated that there would be enough vaccine for all children up to 10 years of age, that is, one through nine. And by September 1 enough for all children up to 20 years of age.

From this you can see it is anticipated that the supply will build up rather rapidly within the next few months. Nevertheless there can be an intervening period of short supply; that is one of the things that concerns you. I know it has been discussed in many of our county societies, and is of concern nationwide. We act here in the manner of an advisory board to Public Welfare in Washington, to advise the Public Health Service and press of our country on how this should be handled. Out of that meeting came the recommendation that it should be allocated on a voluntary basis, but that the allocation should be made to the respective states on the basis of the estimated polio in the age group one through 19. Each state should name the individuals or groups within the state that would develop the recommendations for allocation within the respective states.

The Governor of each state was requested to make such a designation. In this state the Governor designated the Director of Public Health with the understanding, of course, that there would be an advisory committee to work with the Department of Public Health in the Department's recommendation, with reference to allocation within the state.

In the rush of the last few days we have made no move up to this point other than a preliminary consideration on the possible developments of the Advisory Committee. This problem has been discussed briefly on two occasions with our current Polio Advisory Committee so that we are beginning to get some background information with reference to it. In the next two days, however, there is a problem we will need to face in a very realistic fashion on the development of our state recommendations for all occasions.

There will be a meeting in Washington tomorrow, the first meeting of the Advisory Committee that has been appointed nationally for the development of recommendations on local adoptions to the state. It will be anticipated that by tomorrow night or Tuesday we will have some recommendations as a background with which to work.

Now with reference to what is going on in the state as of now. Every case that is being reported, both inoculated and uninoculated, is being subjected to rather extensive hemological studies. We would like to urge that you as physicians, and through you all physicians in the state, keep careful records of every number that is inoculated in every individual and a careful record of any reactions that have developed. We find some defects in recording of lot numbers which have materially retarded and interfered with our studies in the present situation. That is an important assistance that I am sure you can give.

We will also be asking you to assist in the follow-up of these cases. We are attempting to do the same type of intensive follow-up, particularly on the inoculated cases, as was done last year with extensive nationwide trials of vaccine. During the trial period we will be collecting blood specimens, taking specimens from any known infection. Particularly we feel that we should be in the forefront nationwide, and that if any mortality results from vaccinated cases that we get autopsy material so that the diagnosis, in so far as possible, can be completely affirmed.

We would also like to be consulted on the allocation of priority as to who gets the vaccine first. I have indicated that as we go through the summer, if the Chicago situation carries out as currently anticipated, we will be able to take care of most of the children before we'd hit the normal peak of our polio incidence throughout the state. Nevertheless, there will undoubtedly be a clamor for some weeks and a lot of competition as to who gets the vaccine. There will be a recommended age distribution pattern from the State Polio Advisory Committee, submitted in preliminary form and we hope to have a recommendation before you leave here Wednesday.

I think, Mr. Speaker, that about gives a rundown on the current situation as we see it in our view of this entire problem. I like to think of what happened a few years ago when we first began flying DC6 planes. I happened to be on one of the first DC6's that flew east from here and it was two or three days later that there was the first crash and a few days after that a second crash and then all planes were grounded until a thorough study could be made and a determination made as to what had happened. Since that time I have had the pleasure of riding, I am sure, more than a hundred thousand miles in DC6 airplanes and have felt secure with them in those trips. I think we are confronted here with perhaps a comparable situation, something in which we don't know what has been going wrong, which may be a coincidence, but something we feel subtracts from the use of this most valuable biologic that has within it what we hope to be the control of this very serious disease. I thank you very much.

VICE-SPEAKER BAILEY: Thank you very much, Dr. Merrill. The House now has the situation in mind up to at least 11:00 o'clock this morning. We do not want to miss the opportunity of telling Dr. Merrill how much we appreciate the incalculable value of his regular appearances at the Council meeting. We benefit from his attendance and sometimes maybe he benefits from our opinions.

We will now have the report of the Auditing Committee, Dr. Heron, on the budget.

AUDITING COMMITTEE REPORT ON BUDGET

DR. IVAN C. HERON: Mr. Speaker, members of the House: Your Auditing Committee each year has the duty of reviewing the budget of the past year in comparison with the expenditures, and then after considering the budget submitted by the various committees and commissions the promulgation of the new budget for the coming year. This was done and presented to the Council. The Council made some changes and your Speaker has requested that we go down this more or less item by item so you may know where your money is being spent.

You will notice as far as income that your 1955-56 budget proposed the expenditure of income of $620,000. Dues of $470,000 were estimated last year and $480,000 collected. This new budget is based on annual dues recommended by the Council of $50, $3 of which is allotted to the Journal. You notice here the 1954-55 budget estimate and the estimated expenditure under that budget by the June 30 end of the fiscal year. The estimated income from the Annual Session, the Postgraduate Session, the interest, are about the same. You will note interest on the invested funds has dropped.

We come now to the proposed expenditures—Administrative, Rent, Telephone and Telegraph, Postage, Office Supplies and Expense, Equipment Expense. Los Angeles Office Expense is somewhat reduced, otherwise those have been approximately the same as estimated the previous year. Estimate of Administrative Salaries will remain the same. Estimate of the Clerical Salaries to provide for additional clerical help needed by our Executive Secretary, Payroll Tax Expense, Legal Department, will remain the same; Travel Expenses of Officers, Council, Executive Secretary, and Secretary are estimated to be approximately what they were last year.

The Meeting Expense—you will note the Annual Session next year is estimated to be a little less expensive than in San Francisco. The A.M.A. Delegates will be estimated the same as last year and will be a little bit less than the amount that will be spent this year because of the shorter distance of travel. The Secretarial Conference is the same. The Conference on Physicians and Schools is a new item which has been very, very productive of good relations to the medical profession and that is planned to be expanded on nine general meetings next year on a budget of $6,200. The Student A.M.A. is the same and well worth it.

The Woman's Auxiliary—you heard this morning what you support—remains the same as it was the previous year. The Council and Executive Committee the same. We come now to Organization Expense, which embodies Mr. Waterson's activity. You will notice that has been reduced from an estimated $188,000 at the beginning of last year, which was admittedly high, to an estimated actual expenditure of $80,000 and our proposed budget of next year in this activity will be $48,000.

Miscellaneous Expenses, estimated about the same.

The Scientific, Education and Public Relations—these are based on estimates of the forthcoming year submitted by the chairmen of the committees and commissions. The Cancer Commission will be a slight increase over what was estimated to be spent this year. Blood Bank Commission, the same; Postgraduate Committee, the expense will be estimated at a little more, $33,900 to be exact, to provide for an additional helper to schedule and program the conferences.

The Medical Services Commission will remain the same. Other committees about the same. The Department of Public Relations, due to less activity, will be $15,000 less than last year.

Department of Public Policy and Legislation will be estimated the same as the previous year.

Contributions to Benevolent Fund the same. Actually that should be classified as an allocation because the Constitution and By-Laws require this to be put aside for benevolence.

Contributions to Medical Library, Contributions to Nurse Recruitment will be the same. Contributions to Medical Education Fund is represented in the $10 increase in membership dues by the Council, to cover California contributions to this most necessary cause.

The Committee on Malpractice Insurance was a new responsibility and statewide activity is budgeted for $19,000. That gives us an overall budget for the coming year of $704,018. You will note last year we budgeted $793,000 with an estimated deficit of $280,000, but on the basis of money spent it seems our deficit this year will be about $45,118. The 1956 deficit of $109,118—as you know, the budget is prepared fairly generously in allotting this money to spending but each year the fees, the expenditures are quite a sizable sum. It may be that the budget will come out about even.

On the next page you have the proposed budget for California Medicine. You will note they anticipate $15,000 additional income over that estimated for last year. That is from advertising sales. The balance of the income will remain about the same so that they anticipate $17,000, or $17,000 approximately over what was estimated would be coming in at the first of last year.

The expenditures, as you can see—printing expenditures will be up to $110,000 approximately, and the balance of the expenditures being listed as about the same, so that your total expense budget for California Medicine is estimated at $168,850 which would return a net income this year of $21,000.

Vice-Speaker Bailey: This report goes to Reference Committee No. 2, on the budget.

Speaker from the Floor: Prior to that time, Mr. Speaker, we had an idea we might allow the fee, contribution last year, to medical education. In the previous year we had this $100,000 item which began in 1954. Is that proposed $130,000 to be taken from increased dues?

Dr. Heron: That is correct; on an estimate of 13,000 members.

Vice-Speaker Bailey: How about last year?

Dr. Heron: That was taken out of current funds; that was one reason for the deficit last year.

Vice-Speaker Bailey: Thank you very much, Dr. Heron; this goes to Reference Committee No. 2.

I notice that since we have recognized our past presidents, Dr. Samuel McClendon, from San Diego, has come in. His term was in 1946. Dr. Samuel McClendon, stand up and let us see you.

Thank you, Dr. McClendon. When I said that some of our past presidents were starting to work again I forgot to mention that Dr. Cass has done one better and is a whole delegate, not just an alternate.

If no objection the House will be in recess.

. . . The House went into recess at 12:00 o'clock noon.

Sunday Afternoon Session

The Sunday afternoon session of the House of Delegates of the California Medical Association was held in the Ballroom of the Sheraton-Palace Hotel, San Francisco, California, Sunday, May 1, 1955. The meeting was called to order by Speaker Donald A. Charnock, of Los Angeles, California, at 1:30 p.m.

SPEAKER CHARNOCK: Ladies and gentlemen, will you please come to order. It has been reported that there is some difficulty with the sound in the lower part of the room. Dr. Wisner, will you please close that big door down there so the sound effect will be a little better.

We are very apologetic starting this meeting as late as we are, but there has been difficulty in everybody getting something to eat due to conditions beyond our control. At the present time we would like to hear the report of the Committee on Postgraduate Activities, by Dr. Edward C. Rosenow, Jr. Dr. Rosenow.

REPORT ON AUDIO-DIGEST

DR. EDWARD C. ROSENOW, JR.: Dr. Charnock, Mr. Speaker: This is not a supplementary report about Postgraduate Committee but a report to the House of Delegates on Audio-Digest which a year and a half ago this House approved taking over from Mr. Pettis.

The main problem that concerns many members of the House at the time this was taken over was whether or not this new method of postgraduate education would stand a chance of costing the C.M.A. some money.

After looking into the budget this morning I am a little ashamed to bring up such small amounts of money as Audio-Digest has used from the California Medical Association treasury. A year ago we had 350 subscribers, and at the present time we have over 2,500 subscribers in all states of the United States, and about 12 foreign countries, to the five different digests we have.

We have a digest in General Practice, one in Internal Medicine, one in Surgery, one in Obstetrics and Gynecology and one in Pediatrics; another interesting fact I think for you to know is that we have been in business long enough to get some experience on the rate of resubscription on the Digest, and in no month have we fallen below a 65 per cent resubscription rate, which I think is very good.

The amount of money advanced by the Council for the beginning of this baby was $20,000, of which $10,000 was actually made available in money. We have not yet returned this $10,000 to the state treasury because of a number of reasons, but we have the money, we can return it at any time on demand. However, in the working out of a nonprofit organization there are some reasons for keeping a little money of the California Medical Association tied up in this.

We have over $100,000 in the bank to take care of unexpired subscriptions and your Board of Trustees feels that we are in a very sound financial position.

Aside from the financial aspect of Audio-Digest I think you ought all to take pride in the fact that that method of digesting medical literature has filled a service to man and to individuals to get a scanning of the literature without going to libraries which are not available to most men. We are able also to note revisions in the new methods of group study, and we have evidence that there are a number of Audio-Digest clubs and groups that get together from time to time to listen to our tapes and discuss them.

This is all a pretty good idea in postgraduate education, I think. Now where we have 2,500 subscribers probably we have conservatively at least three times that many doctors who are actually listening to our tapes. I think we ought all to be happy to know that we are providing that much interest in medical literature.

And then finally I would like to tell you that we have had many reports from various areas that would bespeak that the California Medical Association in this instance, as in many others, is leading in the field of getting things done in medical public relations. I will quote to you from the *New England Journal of Medicine* which adopted the program to start with and it said, "California is maintaining its reputation for doing things in a big way, high, wide and handsome," and we have many other testimonials to the fact that Audio-Digest is doing for the California Medical Association a great deal of good in public relations. For that reason I think you should all be proud to feel that you have a part in this.

I am, I am sure, very unhappy because I guess we are so busy taking care of our subscribers that we weren't busy taking care of selling you fellows. I was going to get a little packet of descriptive material about just where you can get the material for your own personal use and how much it would cost you and the kind of information we give out to people that ask for our service, but it hasn't arrived and I will pass it out to you when it does arrive. It may not get here until the Wednesday meeting.

If there are any questions any of you have about Audio-Digest I'd be very happy to try to answer them either now or after the meeting.

Speaker Charnock: Thank you very much, Dr. Rosenow. This will be referred to Reference Committee No. 1.

There are a few announcements. The counties of Riverside, San Bernardino, Imperial, Orange and San Diego will have a formal meeting in Room 2062 at 9:30 on Monday. The San Francisco delegation will have a caucus at 9:30 Wednesday morning in Room 2040. There will be a caucus of delegates from District 11 in Room 8045 to convene one and a half hours after the adjournment of this House this afternoon. District 11 comprises Alpine, Amador, Butte, Colusa, Nevada, Placer, Plumas, Sacramento, Sierra, Siskiyou and Yuba counties.

Dr. Herbert C. Moffitt, the president of the San Francisco Medical Society, wishes to make an announcement at this time.

Dr. Herbert C. Moffitt: Our San Francisco Medical Society has recently opened its new Headquarters Building at 250 Masonic Avenue, near Turk. Some months ago when it looked as though we would be able to open our building we asked the officials of the C.M.A. to use our facilities but they felt they were a little far removed from the centers of activity here in town. We hope, however, that the House of Delegates and friends will come out to visit our new headquarters and new blood bank any time you are in San Francisco.

Speaker Charnock: Thank you very much, Dr. Moffitt. At this time we would like to have a report of the Committee on Public Policy and Legislation, Dr. Dan Kilroy, of Sacramento. Dr. Kilroy.

PUBLIC POLICY AND LEGISLATION

Dr. Dan O. Kilroy: Mr. Speaker, members of the House of Delegates: Your Committee on Public Policy and Legislation has served you faithfully and we hope well since our previous report to this House one year ago. Your committee has met with the Board of Medical Examiners to assist them where possible on legislative requests arising from that Board.

The committee has met for a consideration of the approximately 6,000 bills which were introduced in this session of the Legislature, from which group 500 bills were found affecting in one way or the other the practice of medicine.

Your committee has also met with the allied health groups, where there was a fruitful discussion of all those profuse major measures affecting us; therefore I will make no attempt to carry on a discussion of all the legislative measures which are going to affect you in your practice of medicine. I am attempting to discuss a few of these measures which I believe you will find of interest.

Senate Bill 1221, and companion bill SB 723, were introduced to establish a committee to determine the health needs of the State of California. Many of you are aware of the fact that that is in actuality a C.I.O. bill and its many avowed objectives actually boil down to its one real but unstated objective of using a falsely created commission of the state to bring forth a report which will undoubtedly state, if such a commission were created, that all the forms of health care except compulsory health insurance are inadequate to meet the health needs of the people of California.

This measure has not yet been set for hearing and when it does appear you have our assurance that we shall do all within our power to oppose it.

AB 1159, which is more popularly known as a mental health bill, has passed the Assembly Committee on Social Welfare. Dr. Dwight Murray appeared before the committee in opposition to the measure as it was then written, and pointed out the very obvious fact that though it apparently has now arrived at a solution to the mental health problem of this state it was in fact no solution at all. He very ably presented to this committee the evident necessity for an intensive study of that problem and demonstrated that legislation should not be a substitute for an appropriate study.

The assistance of the California Medical Association in carrying out such a supervised study was offered by Dr. Merrill, certain socialistic proponents of the measure having toured California before in support of the measure. Many well-intentioned groups have, we feel, been taken into camp and have lent their support, believing that by a simple act of legislation the problems of mental health in California can be thus easily solved. It is the position of the California Medical Association that a very real problem exists in this field which merits thorough and careful study and to which study the California Medical Association will lend its entire support.

On this basis it has been our recommendation that this measure be referred to an interim committee for such study.

A decision possibly instigated by the State Department of Social Welfare was recently rendered by the Attorney General, which decision raised a question as to legality of participation by physicians and attorneys in any adoption procedure. To correct this situation a resolution was passed by this House of Delegates one year ago directing remedial legislative action. The Committee of the California Medical Association felt that a committee of the California Bar Association and a committee of social workers should be asked to attempt to compromise the commission's directive. The California Medical Association and the Bar Association representatives were in complete accord in their ideas, but these ideas were not acceptable to the social workers. Accordingly, legislation sponsored by the California Medical Association and by the California Bar Association was introduced which failed of passage. This failure was due in part to a report of a previous interim committee which studied this problem and recommended legislation such as we were requesting be not passed, and further based upon the apparent assumption on the part of the Assembly Judiciary Committee that this problem was not as real as it might seem.

Two bills were introduced to allow physicians the right to practice, one point being the establishment of a Psychology Board under the Board of Medical Examiners.

Another simply establishing a Board of Psychology Examiners, to establish what are the requirements for admission. Neither bill has been set for hearing. The Board of Medical Examiners introduced four bills to modernize the Medical Practice Act and all bills are now on their way through the Legislature.

One bill now before the Legislature well demonstrates the necessity for having trained personnel constantly on watch over the 6,000 measures being introduced in Sacramento.

AB 3027, a measure to be heard before the Livestock and Dairy Committee, is a bill for the control of dogs running at large. One section of this bill, however, which is apparently a sleeper, or was meant to be, would make it a misdemeanor for the poundkeeper or any employees of the poundkeeper to release dogs to any person or institution for experimental purposes. This is obviously the old Anti-Vivisection Bill which has failed of passage before and its obvious attempt was hidden quietly in the measure to avoid scrutiny of the California Medical Association.

The naturopaths were back again with requests for a bill relating to the practice of medicine. After considerable stalling the proponents allowed this measure, AB 7, to be heard before the Public Health Commission. This measure was defeated.

I wish to express on behalf of your committee our appreciation to the many members of the California Medical Association who have so generously and readily responded to our various requests for assistance on the many phases affecting legislation before the Legislature. As you know, on various occasions your Legislative Committee presents to you a particular measure and you are asked to contribute your opinions in Sacramento. Your response has been most satisfactory and of considerable assistance to your committee in its attempt to protect your rights to practice medicine under a system of private enterprise.

On behalf of your committee I wish to thank our legal counsel, Mr. Howard Hassard, for the valuable assistance he has given to our committee and without whose help the effectiveness of your Legislative Committee would be markedly decreased. Also thanks to Mr. Ben Read, executive secretary of the Public Health League, whose constant diligence has each year so helped in protecting the members of this Association from the onslaughts of those who are not our friends.

Ben is extremely well liked and his counsel is trusted by our legislators.

In addition this year we have the very able services of Mr. Gene Salisbury, assistant executive secretary of the Public Health League, who comes into Public Health League affairs with invaluable experience in his former capacity as a representative of the California Hospital Association.

To Dr. James Doyle of Los Angeles go my thanks and the thanks of those connected with your legislative activity for the very fine work he has done as a member of this committee. Jim in his work in the southern part of the state has been of tremendous assistance. This assures a good legislative program. He has been a tireless worker and each task which he has assumed has been done well.

On the theory that the best should be saved to the last, I now wish to yield this floor to the chairman of the Committee on Public Policy, Dr. Dwight Murray.

SPEAKER CHARNOCK: Dr. Dwight Murray.

DR. DWIGHT H. MURRAY: Mr. Speaker, Mr. President, President-Elect, the time-honored Past Presidents of the California Medical Association, and members of the House of Delegates: You have heard something of what has been going on in the Legislative Committee in Sacramento. As usual it has been an active, busy session, and I don't see any prospects of its ever being less because for two sessions we have had about 6,000 bills, about 10 per cent of which have some application in some way to the practice of medicine and public health.

I want to tell you for a few minutes something about what is going on on a national plane. I think you might be interested in that. I think you should be interested. First of all, the President has embodied in his health program practically all the things which he wishes under the Omnibus Bill. The Omnibus Bill consists of six titles. Title 1 has to do with reinsurance; that is practically the same bill we had last year and the American Medical Association is opposing that bill. When the bill will be heard, we do not know.

Title No. 2 has to do with hospital financing. It is sometimes called the Wolverton and Kaiser bill. We feel that bill is probably the most vicious bill that we have and that it has to be opposed with all the might and power that the American Medical Association can get together.

I am asking Mr. Hassard to go and testify before the committee on this bill. We do not know when the hearing will be.

Title Nos. 3 and 4 have to do with the nursing profession. One has already been heard. Titles 5 and 6, particularly Title 6, have to do with Mental Health. The American Medical Association has advocated that we have a study commission, the same as you have heard advised for our own Mental Health bill in California. The problem is that all over the United States, and the psychiatrists recognize it, the problem for the care of the mentally ill cannot be adequately and properly met and they wish to do some research and study to try to get a plan and policy and procedure for meeting that difficult problem.

There are several other bills and I wish to say this to you, gentlemen, throughout the hearings it doesn't come out that they speak for federal aid for medical education but I hear this from some man sitting over here in the corner of the committee, "Well, doctor, how about this doctor shortage in the United States?" Somebody else will say, "What about it, if we had more doctors in the United States couldn't they be spread out better, so that there would be no part of the United States that wouldn't be covered? Don't you think we ought to have some program by which we could graduate more medical students?"

Now of course you understand readily what would happen to a bill on medical education before men who are thinking that way. The President has stated, he stated to a very small group of us two years ago, that he was against federal aid to medical education but that medical education was our problem, and we must solve that problem.

Now he has never stated so far as I know whether he considers the problem is being adequately solved. There are several other bills of great interest to us. One is the selection of students on a scholarship basis. It is called the Medical Scholarship Bill, by which students who are regularly enrolled in a school of medicine will be given one, two, three or four years, with their bills paid, their tuition, all important things. In return they will give two years for one; that is, if they accept four years of education there will be eight years of service. That bill is to be heard very soon, I believe the 5th or 6th of May, very soon.

Then the Doctors' Draft Bill has been before the Congress, and as you know, Dr. Walter Martin appeared in opposition to the Doctors' Draft Bill. Now again we are confronted with this situation where some of the doctors of the country feel that the Doctors' Draft Bill should be passed because there has not been the proper selection of the doctors, and for that reason they are advocating the passage of the Doctors' Draft Bill. That is the situation. What will be the result, we do not know.

Another bill which you might be interested in, or at least you should be, is the Medical Aid for Dependents of the Military. That bill has not as yet been set for hearing but it is expected some time around the middle of May. Now a question has been asked of me, and many times, "What do you think about the situation in Washington, how is it, is it any better, any worse, is the President doing this, Mrs. Hobby doing that, how is it?"

Gentlemen, we have stayed with this plan and it is satisfactory to the American Medical Association, just as the California Medical Association will always adhere to the plan that whenever the administration violates the principles of your American Medical Association, or California Medical Association, then it will have to be opposed. It doesn't matter who, or what, who the president may be; it doesn't matter what the bill may be, we stand on principles that have guided us for many years and I can say to you that we are not seeking to oppose anybody at any time, but we are seeking to observe the principles of American medicine that have kept us strong all these years.

Now I could go on on several bills and several issues before the Congress at this time, but I think these are the things that are most alive and most pertinent to us at this time.

Now I have a statement to make to you, gentlemen, I am sure that will make you all very happy. On October 1, 1940, I was made chairman of the Legislative Committee of the California Medical Association. I am now resigning from the Legislative Committee of the California Medical Association. That will be, if I carry on until October, fifteen years, and I am sure that a great many of you would say that has been fifteen years too long; however, I wish to say that the affairs of the Legislative Committee are in good shape, as you can see from Dr. Dan Kilroy's report and by the reports of the other member of our committee, Dr. Jim Doyle, from Los Angeles. These men I feel are very capable; they have rendered very valuable service. Dr. Kilroy has been on the Legislative Committee four years, and I have recommended to the Council that Dr. Dan Kilroy be made my successor as chairman.

Now, gentlemen, there are a few things that I wish to say to you in resigning from this committee, things that I have noticed and things that I think may be of growing importance as time goes on. First of all I have noticed in the past fifteen years that there is a very decided increase in interest on the part of doctors generally in legislation. I can remember when the doctors didn't seem to know —they cared but they didn't seem to have a very direct interest about it—what was going on at the Legislature. There has been a very definite change in attitude. I find that doctors over the state are quite as well informed sometimes as the members of the Legislative Committee on many of these things; that is a very healthful sign and I am very happy to see it.

One thing that I do notice that has changed and that I am not so happy about, is a tendency on the part of groups or counties or various individuals going off on their own on legislative matters. Now that thing happens all too often and I would like to warn you about it. You will have some fast talker come to visit a county society and he will talk for or against a particular bill. He will show all of the various points, we'll say, for the bill. He will show for this reason, that reason, you should support it, "This is a grand bill," that will do that and that.

He never turns the coin over to see what is on the other side and too many county societies are apt to pass a resolution in favor of or against a bill without knowing the other side of the story.

Now oftentimes if a bill like that comes up, or if it is presented to you, first of all it is often the idea of the individual to show his interpretation of the bill. Don't take action on a bill until you have had an opportunity to see the printed bill and study it and then you can know from us; oftentimes your Legislative Committee or the Council will be able to guide you and tell you some of the background and some of the ins and outs.

The same thing is true, and I don't like to see that, with reference to different groups. Doesn't matter whether you are a surgeon or obstetrician, or pediatrician, or orthopedist, or what you are, you are not as big as the whole. Remember that you are a part and not the whole of the California Medical Association, and the plan has been set up whereby you can go through channels, regularly constituted channels, to find out what is the best thing and how is the best way to approach it.

There is always a way that you can appeal and go to the Council of the California Medical Association, that is, before you take action. If you will do that, that allows us to present a united front. There is nothing more embarrassing than to go before a committee and say, "I am speaking for the California Medical Association. We have been authorized to speak for the California Medical Association by the Council on a particular bill." All right, we sit down and up comes Joe Doakes or somebody, who is just as good a member of the California Medical Association as you may be or anybody else may be, and he speaks in opposition. All right, then, what do the members of the committee think? They think, "Oh, well, you fellows had better go home and fight your own battles; don't come to the Legislature until you clean your own dirty linen." That is most embarrassing and a thing which should never exist. If you wish the Legislative Committee to carry on in an effective manner you will cease and desist from such actions, and I sincerely hope that is done.

I could speak of many things that I have noticed. I noticed with a great deal of satisfaction that there are a number of young men, I think younger than they were back when I was a delegate, and that bespeaks well. It is young men that we need, young men that need to train and learn about how is the best way to carry on, learn from these men over here, who have done well for many years.

I wish to thank very definitely this House of Delegates and the many other members of the House of Delegates, and members of the California Medical Association for their assistance that they have given me over these years. I think only about four or five times in all these fifteen years have I asked any member of the California Medical Association to do something that it hasn't been done and it is apparently done willingly and graciously and effectively. That is the thing that makes the Legislative Committee effective, and, gentlemen, I have appreciated that very much. I appreciate the assistance that the Council and officers of the California Medical Association have given me all through these years. These men who have been president here have assisted me no end.

The Council has never refused to assist in any way possible, financially or in any other manner, and done it readily. Now that is the thing that makes it worth while.

I want also to express my appreciation to the members of the Legislative Committee, to Dr. Dan Kilroy and Dr. Jim Doyle, as I have mentioned before. They have done very outstanding work and this is not a one-man show; although I have been accused of running a one-man show in Sacramento, it is not true. The many people who have assisted me, I have appreciated very much; Ben Read and Ed Clancy, and now we have in Ed Clancy's place Gene Salisbury and Dan Kilroy who have done very fine work.

Ben Read. Not too long ago I testified before a committee at the Legislature. I had an idea I had done a fairly good job; I didn't know but I was told so by different people. I heard afterwards that they thought, "Well, the California Medical Association wasn't much interested in this," that I was just putting up a little pitch here, the reason that the California Medical Association wasn't interested in it was because Ben Read wasn't there.

I got a great kick out of that and, gentlemen, that shows you how he is considered by the legislators. They call him "Doc," and when anybody gets sick in the Legislature he is called and then he in turn relays the calls to the doctors of Sacramento and I hope that the doctors of Sacramento continue with their very capable care of the members of the Legislature because that is quite important.

Ed Clancy used to receive very favorable comments from many members of the Legislature, giving reports to the legislators for use after they return home. It is impossible for a legislator to absorb everything that goes on, and then he'd go home and give this report. The only trouble was that sometimes two legislators brought in identically the same report to the same meeting. That was a little embarrassing, but that shows you what these men do and what they help along.

Gene Salisbury is carrying on very well, very effectively, is very well liked and I am sure will do well. Through all these years, though, we have been kept out of trouble repeatedly by our legal advisors. They have done a very good job in keeping us out of trouble and you know it is much easier to stay out of trouble than it is to get out after you get in. Likewise, before Mr. Hassard came here it was Mr. Peart who gave us such fine advice over many years and I can still see and hear him in the way he'd crack down on us on things that weren't right. Howard Hassard is following in the footsteps of a worthy leader.

I can't thank the staff of the California Medical Association, headed by John Hunton and Bob Thomas, enough; they have been imposed on by me many times. I hope that Dan Kilroy treats them more kindly than I have, but they have been asked many times to do things and I appreciate it very much.

Gentlemen, I want to say to you I have enjoyed this work very much, I have had a lot of fun. It has cost me a lot of time and cost me some money from my practice but I consider that it has been worth while. After all, we are all supposed to do something for medicine. I have no patience with a man who, when you ask him if he can do something up at the county seat, will say, "I am busy, pretty busy." Where would he be if he hadn't had a medical society; where would he be if he hadn't graduated from medicine in the beginning? I have felt and still feel I owe a debt of gratitude to medicine and am doing my best to pay that debt and it has been a pleasure. My interest will always be in legislative affairs and I shall always be at the beck and call to assist in any way that I can. Thank you very much.

SPEAKER CHARNOCK: Thank you, Dr. Murray. The chair is going to call on Dr. John Cline.

DR. JOHN W. CLINE: I don't think really what I have to say now is superfluous. Perhaps few people have had the opportunity to work with Dr. Murray over as long a period and as closely as have I. Your reactions to his remarks as he sat down, having given his swan song before the House, I think were supremely eloquent, but in order to keep the record straight and in recognition of the tremendous service that Dr. Murray has rendered, not only to California medicine but to American medicine—and unless my predictions are wrong he will render ever greater service to American medicine before he is through—I wish to introduce a resolution. I am sure that the chair will have no objection to a resolution of deep gratitude to be expressed to Dr. Dwight H. Murray for his tremendous service to California medicine.

SPEAKER CHARNOCK: Thank you, Dr. Cline. Dr. Arlo Morrison will second the resolution. Dr. Morrison.

DR. ARLO A. MORRISON: Mr. Speaker, there are a few pleasant duties that we have with this office and I would like only to add, as John well knows, from my experience in the past two years, how much time and effort it takes to do a job as Dwight Murray has done. Dwight Murray was one of the first people I knew when I came into this organization in 1934 as a member of the House. I have appreciated his counsel, and we have been very, very close friends ever since. To me it is a great honor and pleasure to give to Dr. Murray this very small token of appreciation for the job you have done and to express my great personal esteem for your work in behalf of California medicine. This is presented to you, Dr. Murray, in appreciation of fifteen years of fidelity to medicine in California, and the whole nation. This is your pay for fifteen years of work.

DR. MURRAY: Thank you very much, gentlemen. This is a bit hard on your emotional equilibrium, but I assure you that I appreciate it. What I have done, if anything, for California medicine has been done very cheerfully and willingly and I am still your servant. Thank you very much. . . . Applause.

SPEAKER CHARNOCK: I am sure that the resolution has been adopted unanimously.

VICE-SPEAKER BAILEY: Next we hear from someone you have never seen before, Mr. Edward Clancy.

PUBLIC RELATIONS DEPARTMENT

MR. EDWARD CLANCY: Mr. President and members of the House of Delegates: Our report is one of the few made by nonprofessionals to the professionals. We are proud of the privilege, proud of the honor of representing the profession that has recorded so many accomplishments in making ever better medical care available to the public during the past twelve months. The concern of your Public Relations Department is how all your talents are conveyed to the public, how they are made available, how you have evidenced your interest in patients, and finally how your efforts are accepted.

Based upon the experience of our department we have every reason to believe that more doctors than ever before have come to the realization that the sum total of your public relations score depends upon the success of the public relations originating in each individual doctor's office. Said in another way, the care of the patient is not enough; success depends upon how well you convey to each individual patient that you care for him.

Doctors are showing this awareness; figures prove it. In the year 1954 our department made available to you a series of personal messages to be mailed to your patients. As you will remember they told your patients where you could be reached in an emergency, explained your willingness to discuss fees in advance of treatment, advised on prepayment of medical care in voluntary health insurance, and touched on the cost of good medical care, the danger of becoming a captive patient, and other related matters.

The doctors of California have ordered and mailed out 1,402,600 of these messages to their patients. The circular to gain interest in good medicine was distributed to 806,500 families; 227,210 health records have been distributed by the doctor to the mothers of their young patients. This altogether amounts to 2,436,000 pieces of literature stressing the importance of the doctor to the individual patient. That total is slightly more than those distributed by A.M.A. in serving the doctor. The office plaque reads: "To all my patients: I invite you to discuss frankly with me anything regarding my service or my fees. The best medical care is based on mutual understanding between doctor and patient," and this has been made available throughout the year. At present this forthright statement aimed at furthering better doctor and patient relationships for the elimination of misunderstanding is now on display in over 9,000 offices in California.

This total again goes further than that in the remaining 47 states. This display of the profession's interest in the patient's welfare, of the cooperation of the county society and our department, has been published in nearly every newspaper in the state. Since it furnishes one of the major barometers of our public relations activities, it may be noted that editors have saluted it in editorials. The press applauds the measures taken to effect medical care on a 24-hour basis, your willingness to talk about fees and willingness to present any patient's complaint to the Public Service Committee (not Grievance Committee). Still using the press as a barometer, statewide, we see no more carping criticism of the profession and complaining to the editor or claims of libel.

In the realm of television, ten county societies have put on programs on a public service basis, with the station giving the time at no cost and the profession providing the panels. Two of the programs have received public service awards and in the thousands upon thousands of favorable comments these programs have generated, we know of but one complaint. It came from a husband who wrote, "Please do not start each program off with the medical insigne; my wife is afraid of snakes."

Routinely our department has been on call and at the service of all county societies and committees and commissions of the California Medical Association. We believe there has been an accelerated interest in the Physicians and Schools Conference. The press took great interest in rural health and the most active cooperation of the American Medical Association, based upon the success of the C.M.A.-sponsored Physicians and Schools Conference. Plans are now under way for regional meetings to foster better public relations with our equally sincere friends in the state educational systems.

Two Public Relations and Office Management conferences have just been held with students of the five medical schools, residents and interns, which are having excellent cooperation from the profession. Both the Los Angeles and San Francisco meetings were well attended. Discussion ran all the way from satisfaction in rural practice to the part the young doctor plays in civic affairs.

As a further service to the profession our department has issued a series of bulletins on current questions developed in the field of medical care plans and has produced tape recordings on this and other subjects for the use of county societies. It is the opinion of your department that this information, including professional announcements made available to county societies, should emphasize the local medical care services that are available.

These announcements should recite again and again the importance of every family having a personal physician in advance of any emergency. The announcements should contain a warning to read before subscribing to any medical care plans in which the services are limited to a few doctors.

We can, of course, continue to stress the basic principles that medical service be made available regardless of ability to pay and that people shall have it. In case of misunderstandings with physicians, the public may have access to the forum of public service committee, so that they may be resolved.

In connection with these programs we urge you to enlist the services of the Public Health League. These men can revitalize the story of the profession's past sacrifices and show that the hundred dollars per year dues were for the patient's protection, for the development of the protection of the public from the social battering ram of commercialized medicine.

Young doctors just starting to practice, foreign graduates and those transferring from other states should be made aware of what you more experienced men have done to maintain the free and unregimented practice of medicine for them.

With the proper background and education, we are certain, your new men will have a greater appreciation of their problems in your society. This we believe will be an important step in reducing the number of cases to come before your public service committees and the number of cases reaching the court house. Too often we have noticed in our many meetings with county societies many men have been announced as having been accepted for membership and have not taken the time to accept the honor.

Many other sound practical public relations programs have been outlined by your colleagues. This from a county society public relations chairman is a typical example to stress the importance of the part played by the individual physician. He is practicing "because of the very efficiency with which medicine is conducted today. It tends to impersonalize the relations of the patient with the doctor. As your efficiency increases new strides are made and a new course found and the time we need to spend with the patient decreases, so we must be increasingly aware of the fact we must counterbalance that with a growing concern over our personal relations with the patient. We must give adequate explanation, time and interest to the patient in his hour of trouble."

Finally, we must realize that the future of doctors and medicine rests not with the A.M.A., the state organization or the county medical society, but clearly in the hands of the individual practitioner of medicine. Only in so far as he approaches the ideal which we have outlined will the public relations of medicine remain strong and positive.

We wish to thank you, the members of the Council, and of the California Medical Association, county society officers, members of the Advisory Planning Committee and other members of C.M.A.'s executive personnel who have been of inestimable help really in guiding our efforts during the past twelve months. During that time our department has conferred with officers and members of each of the forty component county societies. One man today summed up a public relations discussion with a story about Zeke, a small farmer who was resting on his front porch after a hard day in the field. A neighbor came by to invite him to attend the meeting of the farm bureau. "What do they tell you at the meeting?" asked Zeke. "They teach you how to raise better grain, how to be a better farmer," his neighbor replied. "Why," Zeke answered, "that is sure a waste of time, I ain't farming as well as I know how right now." The moral, we believe, is obvious; public relations. I think we should all continue to attend the meetings of the farm bureau in which they should make better and better public relationships.

On behalf of Mr. Glenn Gillette and myself, this report is respectfully submitted. Thank you.

VICE-SPEAKER BAILEY: Thank you very much, Mr. Clancy, for your report for the Committee on Public Relations, which will be referred to Reference Committee No. 1.

We will skip over a few items. I have been advised of no further reports, so we will get down to the Medical Services Commission, Dr. Hollis L. Carey.

MEDICAL SERVICES COMMISSION

DR. HOLLIS L. CAREY: Mr. Speaker and members of the House: I want to discuss resolutions first. That is why I handed in my copies to the secretary before I started to read.

During the past year your Medical Services Commission has held six meetings which, together with the activities of its various subcommittees, has made it a very active organization. I am dividing this report into sections devoted to the various subjects which we have considered.

1. *Uniform Claim Forms.* Following a request of this House of Delegates, a subcommittee, chairmanned by William Kaiser, M.D., of Berkeley, has been working toward the development of a single claim form which could be used in reporting claims for all types of prepaid indemnity insurance. The committee has been in close liaison with the California Committee of the Health Insurance Council, the insurance industry's organization, throughout its deliberations. The insurance industry has been working on this same problem for some time. The Medical Services Commission, the Health Insurance Council, and the Council of the C.M.A. have approved the use of two basic forms in reporting claims on indemnity medical care insurance. The commission felt that the single form requested by the House was economically unsound.

These two forms, one of which is to be used for reporting claims for persons having individual coverage, the other to be used for reporting claims where the subscriber is covered by group coverage, will furnish all information necessary for proper processing. Some insurance companies have not as yet indicated their willingness to accept these claim forms, but when the proper form is properly filled out and attached to the insurance company's own form there should be ready acceptance.

2. *Multiphasic Screening.* A subcommittee headed by Dr. Robert Shelton has seriously considered the subject of multiphasic screening. As you know, many nonprofessional groups feel that this is an excellent method of surveying segments of the population to evaluate the health status of that particular group. Your commission recognizes the defects inherent in this type of survey. However, we are also aware of the popularity of this procedure in certain areas. Multiphasic screening, as you know, is usually carried out with the cooperation of various organizations and usually consists of technical procedures that can be handled by technicians such as blood sugars, urinalysis, chest x-ray, electrocardiograph, etc., the results of which are interpreted by doctors. Your commission, while not yet convinced of the economy or medical value of multiphasic screening studies, recommends that so long as these studies can be carried out under the direction of the local county medical society and with the cooperation of the doctors of the area, the C.M.A. and its component societies offer their consultation and cooperation to those groups who wish to conduct such programs.

3. *Pilot Survey of Medical Costs.* A resolution introduced by Dr. Lester Lawrence at a previous meeting of this House requested that a factual survey of the actual dollars involved in the training of a doctor as well as the actual cost of conducting a typical medical practice be made. It was Dr. Lawrence's concept that no figures had ever been developed in this regard and that this would make a valuable contribution to the overall financial picture being considered in the fee structure of medicine today. Dr. Lawrence was appointed as chairman of this subcommittee on Medical Economics and was assigned the task of conducting such a survey. At the present time, the Medical Services Commission has appropriated funds and has employed the firm of Industrial Survey Associates to conduct a pilot survey in Riverside and Santa Clara counties to determine if such data can be obtained and the costs of such an undertaking. It is anticipated that final disposition of this phase of our work will be made as soon as these initial undertakings are accomplished.

4. *Regional Health and Welfare Conferences.* During the past year, the Institute of Industrial Relations, U.C.L.A., and the Health Plan Consultants Committee of Los Angeles, representing labor unions, have held a series of five health and welfare conferences in various areas of the state. It was their intent to study and evaluate the field of prepaid medical care and to disseminate such information to their membership. Representatives from the Medical Services Commission attended each of these meetings and actively assisted the county medical societies where these meetings were held.

5. *Fee Committee.* The Executive Committee of the California Medical Association has reaffirmed the action of the House of Delegates taken in 1946 in stating that "The Board of Trustees of California Physicians' Service shall revise the fee schedule biennially, this revision to be made upon the recommendation of a committee appointed by the Council of the California Medical Association. The Fee Schedule Committee of the Medical Services Commission at present serves this purpose and reports its action to the commission, and through it, to the Council for transmittal to the Board of Trustees of California Physicians' Service. The Board of Trustees of California Physicians' Service has final authority in adopting a fee schedule."

This group is our most active committee. I should like to inform you of this committee's assignment and the techniques used by the committee in carrying out its work.

Since August 1952, the California Medical Association has repeatedly expressed the need for study of an evaluation of the relative money-value of one medical service to another. For instance, if an appendectomy is worth x dollars, how much added to x would constitute a reasonable fee for a hysterectomy? To the best of our knowledge, no definitive study of this problem has ever been made.

On March 10, 1953, the Medical Services Commission of the California Medical Association appointed a subcommittee on Principles of Fee Schedules in order to develop this information, the purpose of which was to bring order out of several varieties of chaos:

1. The chaos of some 22 separate county medical society fee schedules, no two of which contained similar procedures or similar nomenclature and which were, therefore, not useful from a statewide point of view.

2. The chaos of private insurance company fee schedules, which express no rational relationship between fees because for at least twenty years insurance companies have been developing their fee schedules either by copying them from each other, or with a view to hiding insurance defects behind a façade of high payments for procedures rare but not necessarily difficult.

Such information will also assist in continuing the improvement of C.P.S. fee schedules.

In order to save money and effort, the committee first tried to develop a statewide fee relationship from the mass of information available in the 22 county fee studies. Because of the variations in techniques, nomenclature and numbers and types of procedures, we were forced to abandon this technique and to make our own survey, using the standard nomenclature of Blue Cross and Blue Shield.

After developing a survey questionnaire, we started with a pilot survey in Orange and Sacramento counties, in order to make our mistakes on a small but representative scale. We reported what we learned, and were given $15,000 with which to conduct a statewide survey.

Forty-seven hundred California physicians responded to this survey, and their information was transcribed to IBM cards. An established statistician, recognized for his work in medical economic research, came to California to consult with us, and after careful examination, he assured us that our information and sample were adequate and worthy of statewide application.

With the assistance of the consulting actuary firm of Coates, Herfurth and England, we tested this assurance with a statistically valid number of procedures which in the aggregate accounted for from 90 per cent to 95 per cent of all payments to doctors. These procedures were run through the machines again, first on the basis of each individual county and second on the basis of a division of counties into ten geographical groups. A very high correlation developed from these tests when we compared the median fees charged in each county and each geographical group with the median fee charged statewide. We applied other more detailed tests, and because of the close correlation achieved, we felt that development of a statewide relative value fee schedule for the state as a whole was statistically justified.

Most of the procedures listed in the study originated in the survey, which was prepared with a view to eliminating obsolete procedures and adding new and more recent procedures. Your committee feels that the study now reflects with accuracy the actualities of the practice of medicine in California today. The additions were recommended to your committee by doctors representing each field of medical practice, together with the relative values they suggested should be assigned to each procedure they added. Where more than one specialty made differing recommendations as to the relative value of a procedure, the committee named a figure after consideration of all arguments.

We have been confronted with the proposition that we should make two relative value studies, one for general practitioners and the other for specialists. To forestall this proposition, may we say that this has been discussed by your committee, which considers such a proposal unworkable and not in keeping with the assignment of this committee. There are a number of reasons for this which became clear upon consideration.

To forestall any doubts we should say also that this study has nothing to do with recommending or setting anyone's fees. Nor are the results of this survey permanent. When it is necessary to do so, C.P.S. and other insurance carriers may be informed of such necessity, and this committee is the logical study group which should evaluate and expedite such changes.

We hope that this study will be used by insurance companies in setting their indemnities, and that C.P.S. will use it in setting its payments, and that insured groups will use it to measure the sensibleness of the coverage for which they pay their premiums. We hope that it will make good, adequate insurance, which allows free choice of doctors, easier to produce, buy, sell and administer. We hope that it will be used to eliminate some of the obvious inequities in all fee lists, and that it will establish the exclusive right and the exclusive duty of medicine to set and interpret its fees and the methods by which doctors will be paid. And, with a great deal of continuing study and revision, we hope it will help make available to each doctor his fair proportion of the medical dollar spent in California.

We have minor details yet to complete in our work. This consists of further consultation with doctors representing various branches of medical practice and final minor corrections.

The committee has adopted two primary principles:

1. That a dual schedule of fees cannot serve the best interests of medicine at this time.

2. That an interrelationship between medical fees can be established which can create a schedule of relative values that can be applied statewide.

I should like to personally thank Francis J. Cox, chairman, DeWitt K. Burnham, James B. Graeser, Howard P. House, Henry A. Randel, Orville W. Cole and Leon O. Desimone for the fine work done to date.

6. *Usual Fee Indemnity Plan.* You will recall that in its report to the House of Delegates last year, the Medical Services Commission brought out the fact that personalized, high quality medical care that only the individual practitioner of medicine could render was our best product; and the basis by which this better product could be built was the ethical consideration that "the welfare of the patient is the first concern of medicine." The challenge is for the profession to provide personalized, high quality medical care at a cost which the patient can reasonably determine in advance of receiving the service. This plan, now familiar to you and known as the Usual Fee Indemnity Plan, embodies these basic concepts.

The commission realized that it would take time to educate the public and the profession in the principles of the Usual Fee Indemnity Plan. We continue to urge each county medical society to give this concept serious consideration.

7. *Deductible Insurance.* The commission has held two meetings in which we have considered new and unusual types of deductible indemnity insurance. Certainly there are many features of this type of plan which are quite attractive. However, we are not yet ready to make specific recommendations on this type of coverage. We encourage those companies now experimenting and are hopeful for their success. This type of plan will be considered further by your commission.

8. *Indigent Care Program.* One of the most interesting subjects the commission has considered this year has been the possibility that the medically indigent patient might possibly be cared for under a prepaid insurance plan. Your commission has some most interesting information on this subject. In the state of Washington such a plan has been in progress for the past five years. The Board of Trustees of California Physicians' Service has been informed of these studies and is cooperating with the commission in this phase of our work. A very small area in this state has, for the past three years, had an ambulatory office type of care for the indigents of its area. The figures from this small area suggest that the medically indigent patient can be taken care of on a prepayment basis much more economically than under the present systems.

The commission approved in principle the idea of having C.P.S. negotiate with the administrative and/or executive bodies of any of the counties of the state regarding the provision of medical care for the certified indigent or "medically indigent" members of C.P.S., with the view that such care, provided locally by the patient's personal physician, might be a more effective and more economical arrangement than automatically sending such patients to the more impersonal county hospitals and clinics.

The commission has requested the Council of the C.M.A. to urge the C.P.S. Board of Trustees to study the feasibility of such a program, and to negotiate with the responsible county officials in any county in which the county medical society requested such action. All county medical societies should be advised of the existence of this opportunity.

I wish to take this opportunity to thank all of the members of the Medical Services Commission who have willingly given their services during the past year. In addition, I would like to thank Roy Hamman, executive director of California Physicians' Service, for his untiring and patient efforts on behalf of the doctors of California. I feel that he has brought to us a wide experience and mature judgment seldom found in one individual. He has, at all times, made available to us personnel and material from his organization whenever and wherever it was needed.

Vice-Speaker Bailey: Thank you very much, Dr. Carey. The chair recognizes the immense amount of time and conscientious endeavor which has just been represented. We assure the entire committee of the gratitude of this House for their efforts.

We have a report from Dr. Dwight Murray on the Committee of Public Relations. Dr. Murray.

Dr. Dwight H. Murray: Mr. Speaker, members of the House: The Committee on Public Relations consists of the President, President-Elect, Secretary of the Association and the chairmen of the Committees on Public Policy and Legislation, Associated Societies and Technical Groups, and Medical Economics, plus two others named by the Council of the Association. The Secretary serves ex-officio. This committee met on March 26 and the following report is submitted.

During the Association year now drawing to a close the committee has been asked to review the public relations activities of the Association with the particular purpose of ascertaining whether or not there is an overlapping of authority, responsibility, activities or finances. This review has involved looking into three separate activities. One, the Public Relations Department of the Association. A second is the programs being administered by Rollen Waterson Associates, and the third is the California Physicians' Service. In reviewing these three programs the committee secured detailed reports from Mr. Ed Clancy, director of Public Relations of the C.M.A., Mr. Rollen Waterson and Mr. K. L. Hamman, executive director of California Physicians' Service.

The program headed by Mr. Waterson includes for the main part the promotion of voluntary forms of health insurance which permit free choice of physicians and hospitals.

Under the proposals approved by the 1954 House of Delegates this endeavor has been pretty well confined to two fields. First is the promotion of the usual fee indemnity plan and second is the dissemination of information about the voluntary local option plan for California Physicians' Service to establish a $6,000 ceiling program.

In view of the period of time required to work up the usual fee indemnity plan and make it effective in any community, the establishment of the $6,000 C.P.S. ceiling has appeared to be the only program which can conceivably be put into effect at this time to offer competition with closed panel programs. Consequently, Mr. Waterson's activities have been mainly in this field, but have not been limited in such a way as to neglect the promotion of the usual indemnity concept or the necessary market research into public needs and desires in health insurance.

The Usual Fee Indemnity Plan has been adopted in some four counties and has been offered in several other counties where no action has been taken. I might say that this plan is being very closely watched and I have been asked many questions by men from other states as to how successful it is and they are watching as usual what California is able to do with it.

On the other hand, many county societies have requested information on the $6,000 C.P.S. ceiling. As of a month ago, that is, about the first of March, 27 counties had embraced this program. These counties cover about one-fourth to one-third of the population of California. Mr. Waterson was granted a budget of $183,000 for these activities in the meeting of the House of Delegates last year. In the first eight months of the year he had spent in round figures some $39,000 and had in process another $10,000 of work which had been approved by the C.M.A. Executive Committee.

It is estimated that by the close of this fiscal year next June 30, his total expenditures for the 14-month period will come to about $75,000, possibly less.

California Physicians' Service has been operating on a budget of $60,000 a year for sales promotion. For the coming year the budget has been increased to $75,000. These funds are spent for newspaper advertising, production of pamphlets and similar means of attracting both employees and management to consider C.P.S. as a health insurance carrier. When it is considered that C.P.S. is doing a gross business of $25,000,000 a year, the expenditure of $75,000 represents only three-tenths of one per cent of the gross, a figure which is surprisingly small when you consider it alongside the importance of maintaining the membership.

C.P.S. has not embarked on any program of either public or professional education except in maintaining a staff of physician relations personnel to serve the physician members throughout the state and to answer questions and in general represent the organization to its own physician members.

It is not engaged in any of the public relations activities which are generally thought of in terms of publicity, institutional advertising, and so forth.

The Public Relations Department of C.M.A. has devoted its efforts to the fundamental effort of promoting and fostering sound physician-patient relationships. Much of that work follows the suggestions laid down by Dr. Ernest Dichter several years ago. This work has involved the establishment of emergency telephone service, dissemination of information about individual physicians to their own patients relative to their availability to the community and similar projects.

I think, gentlemen, we can all testify to the fact that this has helped us immensely and has given us really a mark of progress for the California Medical Association and certainly it has improved our relations with the public no end.

In the past six months the Public Relations Department has been called upon by members of the Association for about 1,500,000 pieces of literature for distribution to their patients. These items are sent on request of a member. The C.M.A. Public Relations Department was granted a budget of $85,000 at this time last year. In the first eight months of the fiscal year its total expenditure amounts roundly to $42,000 and it is estimated that by the end of the fiscal year the total will come to around $55,000.

You have just heard a very excellent report from the Director of Public Relations Committee on his activities, and, gentlemen, I can say that the work that that committee has done is bearing fruit every day. I think it is a fine piece of work that they have done and as you will see later on, we recommend its continuing.

In reviewing these functions and activities the committee was of the opinion there was no overlapping of the functions, or programs of expenditure. The committee also felt that the C.P.S. sales promotion program was strictly a business promotion plan. These activities should not be further considered by this committee but left in the capable hands of the Trustees of C.P.S.

In accordance with this belief, the balance of this report will deal with the functions of the C.M.A. Public Relations Department and Rollen Waterson Associates. The committee gave considerable thought to the broad subject of public relations and came back to the fact which has long been recognized, namely, that public relations for the medical profession originates in each physician's office in his dealing with his patients.

In this concept it is obvious that good public relations in the profession requires top performance by each physician and such performance requires a considerable amount of indoctrination of physicians. Such indoctrination must cover not only new graduates in medical schools but also the thousands of physicians who come to this state each year by reciprocity and are not familiar with California conditions and needs. While some efforts are now being made in this direction the committee will offer additional suggestions as part of its recommendations.

Conclusion 1. The committee finds no overlapping or duplication in the public relations program of the C.M.A., C.P.S. and Rollen Waterson Associates.

Conclusion 2. The committee sees opportunity for greater correlation of these programs.

Conclusion 3. The committee suggests that the C.P.S. Public Relations and Sales Promotion program be disassociated in our thinking from other programs since C.P.S. is primarily concerned with selling contracts and not with molding basic public opinion.

Conclusion 4. The committee sees the need for gradual development of indoctrination programs to cover all physicians. I think that should be stressed very strongly. We find these boys just graduating from medical school where they go into hospitals for intern and resident training, come out with very little conception of just generally what is required of a doctor in private practice and I think it is up to each individual county society to see that these boys are properly indoctrinated at the time they are accepted into the society.

I understand that Los Angeles County has long since been involved in such a program and I am told by many of the members that it is a very helpful thing.

Conclusion No. 5. The committee feels that the basic public relations work of the C.M.A. Public Relations Department must be of a continuing nature. The need for more fully trained physicians in this field will continue for an indefinite period. The question was brought up in discussion between the members of the committee and those who were interviewed at that time, would it be possible for this work to be turned over to physicians alone. We felt that it would be highly desirable but to find the physicians who were capable and who were willing to do this work is quite another thing. We felt that it is being very carefully and conscientiously carried out by your doctors at the present time.

Recommendations of the Committee on Public Relations

1. That the campaign of fundamental public relations now being undertaken by the C.M.A. Public Relations Department continue, with adequate supervision by the appropriate committees and the policy-making bodies of the Association.

These committees cannot carry on in the way that you want them to unless a policy is first laid down and I think if there is any fault to find with any of the committees that it has been due to the fact that they have not had the proper instruction or probably the proper policy has not been laid down for them to follow.

2. The committee suggests that means be found to provide a more adequate and meaningful indoctrination program for physicians, whether they be recent medical school graduates or physicians coming from other areas into California.

As you know, there are many physicians coming to California from other states. I was told by the Board of Medical Examiners not too long ago, possibly three months ago, that there were around 1,300 doctors that had come in the past year from other states. They have practiced in other states, to be sure, but their concepts and their knowledge of the average needs are different somewhat to California. You know, being a little egotistical somebody has said, "If you want to know how the world is going to look in 25 years look at California now."

3. That means be found more fully to impress on all the physicians the fact that professional licenses carry with them a responsibility to the community. Each licensed physician has a duty and responsibility which he can make effective as a participant in community and civic affairs. I think that cannot be stressed too much, gentlemen, because we must be citizens of our community. If we are citizens of our community I am sure the community will respect us much more highly. Let's get in and help the Chamber of Commerce and help everybody we can and we can do a lot of work toward influencing such things as the Tuberculosis Association, Cancer Society and many others that need direct professional leadership.

4. That the program of the Association be continued along its present lines under the supervision of the C.M.A. Executive Committee and Council as long as a need for this work continues.

5. That a continuing correlation of the activities of the three groups now under study be fostered by all concerned and in the case of C.P.S. this correlation will result in closer cooperation between the C.M.A. representatives, and the professional service representatives of C.P.S.

6. That the overall supervision of the Public Relations activities be maintained under the present committee set-up of the C.M.A. or under such amendments as may be approved by the House of Delegates.

The committee wishes to thank those who appeared before it and contributed information essential to this study. It also wishes to commend those counties which have embraced the Usual Fee Indemnity Plan and thus have embarked on the long-range program of a voluntary form of health insurance with free choice of physicians. The committee also wishes to commend the county societies which have developed the $6,000 C.P.S. Income Ceiling Program and thus made possible the medical offering of free choice health insurance contracts in this area.

This report is submitted by the Committee, Dr. Arlo Morrison, Dr. Sidney J. Shipman, Dr. Frank A. MacDonald, Dr. H. Gordon MacLean, Dr. Leopold H. Fraser, Dr. A. C. Daniels, ex-officio, and the chairman. Thank you.

VICE-CHAIRMAN BAILEY: Many thanks, Dr. Murray, to you and the many members of your committee. Are there any further reports of officers or standing committees, special committees?

INTRODUCTION OF RESOLUTIONS

That brings us up then to Unfinished Business, of which the chairman knows of none, and thus to New Business. Under New Business the Council has not called an interim session, thus such resolutions as are presented shall be acted upon at this session. We call your attention to the C.M.A. custom of allowing resolutions to be presented only as the resolved portion, with no "whereases" in the beginning to explain it.

Your Speaker and Vice-Speaker feel a minimum amount of argumentation before the resolved part is given is to the benefit of the House because we then have a better knowledge of what the resolution is about. We hope there is not too much explanation because the proper place for such explanation is in the Reference Committee. Are there any resolutions? Dr. Lum.

DR. DONALD D. LUM: I will introduce these resolutions from the Council.

BY-LAWS AMENDMENT No. 1

Resolved, That Chapter VII of the By-Laws of this Association, California Medical Association, is hereby amended by deleting the present Chapter VII and inserting in lieu thereof the following:

Chapter VII—Commissions and Committees.

Section 1. Commissions and Standing Committees.

This Association has the following commissions and standing committees that are subordinate to the respective commissions as follows:

(a) *Commission on Medical Services,* responsible for the activities of and through which the following standing committees shall report: (1) Committee on Medical Economics, (2) Committee on Fees, (3) Committee on Maternity and Child Care, (4) Committee on Indigent, (5) Committee on Problems of the Aged.

(b) *Commission on Public Health and Public Agencies,* responsible for the activities of and through which the following standing committees shall report: (1) Committee on Rural and Community Health, (2) Committee on School Health, (3) Committee on Military Affairs and Civil Defense, (4) Committee on State Medical Services, (5) Committee on Veterans Affairs.

(c) *Commission on Public Policy,* responsible for the activities of and through which the following standing committees shall report: (1) Committee on Legislation, (2) Committee on Public Relations.

(d) *Commission on Medical Education,* responsible for the activities of and through which the following standing committees shall report: (1) Committee on Medical Education and Hospitals, (2) Committee on Mental Health, (3) Cancer Committee, (4) Committee on Postgraduate Activities, (5) Committee on Blood Banks, (6) Committee on Industrial Health and Rehabilitation.

(e) *Cancer Commission,* responsible for the activities of this Association in the fields of cancer research, prevention, education and control.

(f) *Commission on Professional Welfare,* responsible for the activities of and through which the following standing committees shall report: (1) Committee on Health and Accident Insurance, (2) Committee on Unlawful Practice of Medicine, (3) Medical Review and Advisory Board.

(g) *Judicial Commission,* which shall hear and decide all appeals of disciplinary actions taken by component societies in the manner and as provided in Chapter III of the By-Laws.

Section 2. Standing Committees—Creation of New or Termination of Existing Committees.

The Council, on recommendation of a commission, may create new or terminate existing standing committees that are to function or function under the commission submitting the recommendation.

Section 3. Commissions—Membership—Method of Appointment and Terms of Office.

Unless otherwise provided in these By-Laws, each commission shall consist of not less than five nor more than nine members; the number of members of each commission to be determined by the Council from time to time.

Members of the commissions of the Association shall serve for terms of three years, and to the extent possible terms of office of commissioners shall be staggered. Terms of office shall expire at the close of the annual session of the Association, and prior to each annual session the Council shall nominate successors to those commissioners whose terms will expire and submit the names of such nominees to the House of Delegates. The House of Delegates may confirm or reject any nominee. If the House rejects any nominee, the Council shall immediately submit another nominee.

In nominating commission members the Council shall endeavor to maintain on the membership of each commission the chairmen of the committees that are subordinate to and report through such commission.

Vacancies occurring between annual sessions shall be filled by the Council.

Section 4. Judicial Commission.

The Judicial Commission of this Association shall consist of nine members, who shall serve for terms of three years each and who shall be appointed by the Council. The terms shall be staggered so that three terms expire each year. Terms expire at the conclusion of the annual session. Its jurisdiction and powers shall be as set forth in Chapter III of the By-Laws.

Section 5. Standing Committees—Membership—Appointment and Terms of Office.

Unless otherwise provided in these By-Laws each of the standing committees listed in Section 1 of this Chapter shall consist of not less than three nor more than nine members; the number of members of each standing committee to be determined by the Council. Members of standing committees shall serve for terms of three years each. One-third of the membership of each of these committees shall be nominated annually by the Council, subject to confirmation or rejection by the House of Delegates. If the House of Delegates rejects any nomination, the Council shall immediately submit another nominee.

Vacancies occurring between annual sessions shall be filled by the Council.

Section 6. Procedure for all Committees.

Commissions, standing committees and special committees of the Association may make investigations and surveys on authorization of the Council or House of Delegates; but all recommendations and reports of standing committees shall be submitted to the commission under which each standing committee functions and all reports of commissions shall be submitted to the Council or House of Delegates.

Other than as herein stated, no committee is authorized to act for or bind this Association.

Section 7. Officers of Commissions and Standing Committees.

The chairman of each commission and of each standing committee shall be appointed from among the membership of each commission and standing committee annually by the Council, by and with the approval of the House of Delegates.

Each commission shall have a secretary, who shall likewise be appointed annually by the Council, by and with the approval of the House of Delegates.

Each standing committee may but need not have a secretary, and if it determines to have a secretary it may elect one of its own members to such office.

Section 8. Annual Reports.

Each standing committee shall submit a written report to the commission under which it functions, as and when required by it. Prior to the annual session each commission shall submit a written report to the Council, including therein the reports of the various standing committees for which each commission is responsible. The Council shall determine in each year the time when such reports shall be submitted.

Section 9. Duties of Commissions and standing Committees.

(a) The *Commission on Medical Services* shall study, investigate and from time to time submit recommendations concerning the methods under which medical services are furnished or organized and concerning all phases of medical economics. It shall allocate to the various standing committees for which it is responsible particular projects within their respective fields.

(b) The *Commission on Public Health and Public Agencies* shall study, investigate and from time to time submit recommendations concerning public health matters and the activities of public agencies in the field of medical care. It shall allocate to the various standing committees for which it is responsible ,particular projects within their respective fields.

(c) The *Commission on Public Policy* shall study, investigate and from time to time submit recommendations concerning legislative matters affecting public health or the practice of medicine and concerning relations between the public and the medical profession. It shall allocate to the various standing committees for which it is responsible particular projects within their respective fields.

(d) The *Commission on Medical Education* shall correlate the activities of the various standing committees for which it is responsible in their specific fields of medical research and study and education; it shall from time to time submit recommendations and reports concerning activities within the functions of its standing committees. It shall allocate to the various standing committees for which it is responsible particular projects within their respective fields.

(e) The *Commission on Professional Welfare* shall study, investigate and from time to time submit recommendations concerning professional welfare. It shall allocate to the various standing committees for which it is responsible particular projects within their respective fields.

Section 10. Committee on Scientific Work.

There shall be an independent standing committee on scientific work consisting of the secretary-treasurer, secretaries of the sections on General Surgery and General Medicine, and three other members appointed by the Council, each of these three members to serve for terms of three years, one member being appointed each year. The secretary-treasurer shall be chairman of the committee.

This committee shall determine the character and scope of the scientific proceedings of the Association for each session, and shall invite the guest speakers, subject to the instructions of the Council.

At least thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers and discussions shall be presented.

This committee shall also act as the Committee on Arrangements for the annual session. It shall have charge of all local arrangements not otherwise provided for. It shall provide suitable meeting places and shall have general charge of all local arrangements. It shall have power to appoint local advisory members and subcommittees to aid in its work.

This committee shall have at least one joint session with the section secretaries, at a time and place to be designated by the chairman of the committee, at least forty-five days prior to the annual session, to coordinate more efficiently the various activities of the Association at its annual session. The chairman of the local committee on arrangements shall be invited to attend this meeting.

Section 11. Publication of Commission and Committee Reports.

Reports of the commissions and their standing committees and reports of special committees, as approved by the Council, shall be published in a pre-convention bulletin or in the official journal.

Section 12. Special Committees.

The House of Delegates and the Council are authorized and empowered to appoint special committees, with special instructions as to work to be undertaken, whenever it is deemed necessary to do so.

Special committees shall report as directed in the resolution or action creating them.

Each special committee shall report at the annual session immediately following its appointment, and unless it is continued by action of the House of Delegates or Council its existence shall terminate at the close of the annual session to which it reports.

And Be It Further Resolved, That Chapter VI, Section 6(c), of the By-Laws of this Association is hereby amended by adding at the end of said subsection (c) the following new sentence:

"It shall act as an advisory committee to the Editor."

And Be It Further Resolved, That Chapter III, Sections 2 and 3, of the By-Laws of this Association, are hereby amended by substituting the words "Judicial Commission of this Association" for the word "Council" in all places where said word "Council" appears; by substituting the words "Secretary of the Judicial Commission" for the words "Secretary of this Association" in Section 2; and by deleting the words "Executive Committee or" from Section 2.

And Be It Further Resolved, That Section 6 of Chapter IV of the By-Laws of this Association is hereby repealed.

VICE-SPEAKER BAILEY: This will be a proposed By-Law change and therefore referred to Reference Committee No. 4.

DR. LUM: The next two resolutions are concerned with Physicians' Benevolence Fund.

CONSTITUTIONAL AMENDMENT No. 1

WHEREAS, A new corporation has been established called Physicians' Benevolence Fund, Inc., to administer the duties under Section 6 of Article IV of the Constitution of the California Medical Association; now, therefore, be it

Resolved, That Section 6 of Article IV of the Constitution which now reads:

"At least $1.00 out of the annual dues paid by each active member of the Association shall be allocated to the Physicians' Benevolence Fund and shall only be used for the purposes as set forth in the By-Laws."

is hereby amended to read as follows:

"At least $1.00 out of the annual dues paid by each active member of the Association shall be allocated to the Physicians' Benevolence Fund, Inc., a corporation, and shall be used for the purposes as set forth in that corporation's Articles and By-Laws."

BY-LAWS AMENDMENT No. 2

WHEREAS, A new corporation has been established called Physicians' Benevolence Fund, Inc., to administer the duties under Section 18 of Chapter VII of the By-Laws of the California Medical Association; and

WHEREAS, The functions as set forth in Section 18 of Chapter VII of the By-Laws of this Association, California Medical Association, are no longer necessary; therefore be it

Resolved, That Section 18 of Chapter VII of the By-Laws of the California Medical Association be and is hereby deleted from said By-Laws.

VICE-SPEAKER BAILEY: That also will be referred to Reference Committee No. 4.

DR. LUM: Constitution and By-Laws.

BY-LAWS AMENDMENT No. 3

WHEREAS, Section 18 of Chapter VII of the By-Laws of California Medical Association has been deleted; and

WHEREAS, It is desired for the maintaining of the continuity of the remaining sections of Chapter VII; now therefore be it

Resolved, That Sections 19, 20 and 21 of Chapter VII of the By-Laws of the California Medical Association be renumbered as Sections 18, 19 and 20 respectively.

VICE-SPEAKER BAILEY: Same committee. Thank you.

DR. LUM: This is a resolution concerning Immune Globulin (Human).

RESOLUTION No. 1

WHEREAS, "Immune Globulin (Human)" has been dispensed under that name for many years, for use with a variety of conditions; and

WHEREAS, This same product has now been labeled by the National Institutes of Health under the official nomenclature "Poliomyelitis Immune Globulin (Human)" under the licenses granted to biological laboratories; and

WHEREAS, The inference of the new nomenclature is that this preparation is specifically a product for the treatment of poliomyelitis; and

WHEREAS, The Council on Pharmacy and Chemistry of the American Medical Association, as well as producers of this product, are opposed to this new nomenclature; now, therefore, be it

Resolved, That the California Medical Association go on record as requesting the change in name of this product to its earlier designation; and be it further

Resolved, That the California delegates to the American Medical Association introduce and work for the passage of a resolution in the House of Delegates of the American Medical Association to bring about this change of name.

Vice-Speaker Bailey: That goes to Reference Committee No. 3. Thank you, Dr. Lum, for the Council's resolutions.

For further resolutions we ask that you give your name and county for the benefit of the record here. Any other resolutions?

Dr. Homer C. Pheasant (Los Angeles County):

BY-LAWS AMENDMENT No. 4

Resolved, That Chapter IV, Section 1(a) of the By-Laws be amended by adding "Orthopedics" to the list of Scientific Sections and by changing the number of Scientific Sections from fifteen to sixteen.

Vice-Chairman Bailey: That goes to Reference Committee No. 4.

Dr. Edward C. Halley (Fresno County): My resolution concerns charges for hospital service.

RESOLUTION No. 2

Whereas, The public has become critical of increasing hospital charges; and

Whereas, The increasing costs of hospital services is one of the major reasons for many people demanding state medicine; and

Whereas, It can be shown that the subsidization of hospital board and room costs by income from other hospital services is in fact exploitation of private uninsured patients and is also a subsidization of industrial and commercial cases; and

Whereas, This uncorrected practice is against public policy and honest medical ethics; and

Whereas, "The basic principle in establishment of charges should be that each department be self-supporting and so applied that neither the hospital nor the physician rendering the service shall exploit the patient or each other"; now, therefore, be it

Resolved, That the California Medical Association place upon record that it believes hospital charges should be lowered where possible; and be it further

Resolved, That the actual cost of room and board be reflected in hospital charges so that charges for other services need not be exaggerated in order to cover deficits incurred by inadequate charges for room and board; and be it further

Resolved, That a copy of this resolution be officially transmitted to the California Hospital Association urging and encouraging that association to help correct the existing situation as to charges for hospital services.

Vice-Chairman Bailey: Thank you, Dr. Halley. That will be referred to Reference Committee No. 3. Dr. Malcolm Todd.

Dr. Malcolm Todd (Los Angeles County): I have a resolution in behalf of the Ophthalmological Section.

RESOLUTION No. 3

Whereas, A committee of three members of the Ophthalmological Section of the American Medical Association has advised the Judicial Council as a basis for a ruling that it is unethical for a physician to dispense glasses unless there are no other sources from which the patients can obtain the glasses in that locality; and

Whereas, The thousands of individual ophthalmologists who are members of the American Medical Association were never consulted regarding their opinions and desires in this matter; and

Whereas, From the time the American Medical Association was founded the members have possessed the freedom of rendering complete dispensing services to their patients; and

Whereas, Many ophthalmologists sincerely and conscientiously believe that in their individual practices the best interests of the patient are served by the ophthalmologists rendering complete dispensing services; and

Whereas, The dispensing of glasses is not primarily the selling of merchandise, but is primarily the rendering of a service; and the furnishing of the merchandise is only incidental; and

Whereas, The American Optometric Association has passed a resolution stating that the "field of visual care belongs exclusively to optometry and that it is the stated objective of the American Optometric Association that all other professions who engage in the field of visual care should be excluded from this field by the enactment of new statutes in all of the various states"; and

Whereas, Any such action would entirely exclude ophthalmologists from the field of refraction and eventually from the care of any eye condition or eye disease, and would even prevent a physician from recording a patient's visual acuity; and

Whereas, Any interpretation of ethics which prevents an ophthalmologist from rendering a complete dispensing service tends to force many of his patients into the hands of the optometrists and works for the attainment of optometry's stated objective of excluding ophthalmologists from the field of visual care and the taking over of the field of ophthalmology by the optometrists; and

Whereas, There should be no further infringement on the basic individual freedoms of ophthalmologists nor of any other group of the members of the American Medical Association; and

Whereas, A recent poll of all physicians practicing ophthalmology in Los Angeles County, taken by the members of the Los Angeles Society of Ophthalmology and Otolaryngology showed that the ophthalmologists were in favor of permitting each physician to render a complete dispensing service if he wished to do so, by a ratio of 183 to 10; therefore, be it

Resolved, That the House of Delegates of the California Medical Association instruct the California delegates to the American Medical Association to reopen the discussion, and actively work for a change of the present interpretation regarding the ethics of rendering a complete dispensing service by physicians; and that the delegates support a new interpretation which will clearly and definitely state that it is ethical for any physician to render a complete dispensing service in supplying glasses to his patients if he wishes to do so.

VICE-SPEAKER BAILEY: Reference Committee No. 3.

DR. T. D. ENGLEHORN (Monterey County):

RESOLUTION No. 4

WHEREAS, Advertising in medical society bulletins and other publications is not an ethical practice and is not permitted by or available to doctors of medicine; and

WHEREAS, Editors and business managers of some medical society bulletins and other medical publications do accept advertising from clinical laboratories owned and operated by persons who are not doctors of medicine and therefore not bound by the codes of ethics of any county medical society, the California Medical Association, or the American Medical Association; and

WHEREAS, Acceptance of such lay laboratory advertising by a journal lends to the advertising the connotation of approval or acceptance, despite blanket editorial allegation to the contrary; and

WHEREAS, The acceptance and publication of such advertising by lay laboratories creates an unfair advantage in favor of a nonmedical person and not available to the doctor of medicine within the various codes of ethics; now, therefore, be it

Resolved, (1) That this House of Delegates recommend to each county medical society that its bulletin not accept advertising from lay laboratories.

(2) That any notice or announcement by a lay laboratory that is printed in a county medical society publication be subject to the same restrictions that apply to similar announcements by doctors of medicine.

(3) That this House of Delegates instruct the C.M.A. delegates to the American Medical Association to introduce this same or a similar resolution in the next meeting of the House of Delegates of the A.M.A.; and

(4) That copies of this resolution be sent to all component medical societies of the C.M.A. and to the A.M.A.

VICE-SPEAKER BAILEY: Referred to Committee No. 3. Dr. Bullock.

DR. LEWIS T. BULLOCK (Los Angeles): We have been advised that each physician should come to the aid of community operations and assist in such organizations as the Heart Association. The adoption of this resolution will be of considerable aid to these public health organizations in promoting improvements in health.

RESOLUTION No. 5

WHEREAS, The public is led to believe that the income from the race tracks on certain days designated as "Charity Days" will be used for charitable and health promoting purposes; and

WHEREAS, A considerable portion of the net income on these days is actually diverted to other uses by means of the state tax; and

WHEREAS, Such division of funds to purposes different from those intended by the contributors amounts to a failure to fulfill the contract with the contributors; and

WHEREAS, The State would not allow a private agency to use funds contributed to a "charitable" organization for other purposes; therefore, be it

Resolved, That this House of Delegates state that all of the net income from "Charity Days" at the races should be used for charitable and health promoting purposes and the division of these funds by a state tax should be eliminated; and

That the legislative representatives of the California Medical Association be instructed to take all possible steps to bring this about.

VICE-SPEAKER BAILEY: That resolution goes to Reference Committee No. 3. Dr. Herbert C. Moffitt, Jr.

DR. HERBERT C. MOFFITT, JR. (San Francisco): This resolution reads as follows:

RESOLUTION No. 6

WHEREAS, "Service Type" plans have never successfully provided a full scope of medical care; and

WHEREAS, "Indemnity Type" plans provide a practical means of furnishing these medical services through the C.P.S. Indemnity Company; and

WHEREAS, Private insurance companies have developed a plan and are selling indemnification policies with combined dollar deductible and co-insurance features providing adequate and ideal coverage, without the necessity of fee schedules, which saves untold hours and dollars in administrative work; therefore, be it

Resolved, (1) That this House of Delegates direct the C.P.S. Trustees to set up a type of policy immediately, which would include dollar deductibility and co-insurance; and

(2) That C.P.S. be directed to push the sale of this type of insurance immediately, with even greater vigor than it sells the present service type policy; and

(3) That medical fees under C.P.S. indemnity would constitute the normal private fees of the in-

dividual physician, which would eliminate the necessity of a fee schedule.

Vice-Speaker Bailey: That, Dr. Moffitt, will go to C.P.S. Committee.

Dr. Moffitt: The second resolution on behalf of the Medical Society has to do with the establishment of geographical areas and differentials between cost of medical care in different communities within the state. It reads:

RESOLUTION No. 7

Whereas, California is divided into many economic and geographic spheres by reason of diverse agricultural, manufacturing, urban and suburban communities; and

Whereas, There is a wide variation in the general income level among such communities; and

Whereas, The cost of providing the best medical care varies directly with such economic spheres; and

Whereas, It is unreasonable to assess low income areas with premiums equal to those of high income and urban communities; and

Whereas, It is not possible to provide the best medical care in urban areas from premiums designed for rural income areas; now, therefore, be it

Resolved, That C.P.S. be directed to develop these economic and geographical spheres and to develop premium schedules with accompanying fees which together will be commensurate with these great differences in subscribers' incomes and the cost of providing the best medical care.

Vice-Speaker Bailey: Reference Committee on C.P.S.

Dr. Moffitt: The third resolution our society wishes to introduce is:

RESOLUTION No. 8

Whereas, The doctors of the San Francisco Medical Society have seen fit to endorse the C.P.S. $4,200 to $6,000 fee schedule; and

Whereas, The C.P.S. has indicated that the dual fee schedule will be supplied in bidding certain contracts; therefore, be it

Resolved, That the C.P.S. be obligated to pay the $4,200 to $6,000 fee schedule on any and all contracts in which the premium is collected on this basis, regardless of the quoting of a composite premium.

(The premium can be determined competitively with premiums quoted by other commercial bidders in respect to their present fee schedule.)

Vice-Speaker Bailey: C.P.S. Reference Committee.

Dr. Moffitt: The next resolution describes the divergence of interest that develops between the field of Eye on one hand, and Ear, Nose and Throat on the other.

BY-LAWS AMENDMENT No. 5

Whereas, In the distant past the clinical and scientific material of ophthalmology and otolaryngology was closely associated and a common section served a useful purpose;

In recent years, however, the clinical and scientific material has been increasingly technical in nature in both divisions of the specialty. Administrative problems likewise have been confined to either the eye or the ear, nose and throat portions of the section, rarely to both; now, therefore, be it

Resolved, That the Eye and the Ear, Nose and Throat Sections of the California Medical Association be separated into two sections to be designated the Eye Section of the California Medical Association and the Ear, Nose and Throat Section of the California Medical Association. Each section to have its full complement of officers and to meet annually subject to the existing rules of the California Medical Association.

Vice-Speaker Bailey: That goes to Committee No. 4, Amendments to the Constitution and By-Laws.

Dr. Moffitt: The next resolution has to do with opening our exhibit to the public.

RESOLUTION No. 9

Whereas, The public has repeatedly demonstrated its interest in the latest medical advances; and

Whereas, The medical profession desires that the public receive accurate information about medical progress; now, therefore, be it

Resolved, That the C.M.A. Council consider the possibility of opening the scientific and technical exhibits of the C.M.A. to the public on the last day of the annual meeting.

Vice-Speaker Bailey: Reference Committee No. 3.

Dr. Moffitt: The next resolution was concerned with changes in the A.M.A. evaluation of advertising.

RESOLUTION No. 10

Whereas, The Board of Trustees of the American Medical Association in a recent action voted to discontinue the seal acceptance programs because of evidence from its scientific councils and committees that they can render a better service to the medical profession and the public by the substitution of evaluation programs for said seal acceptance programs; and

Whereas, There is at least a temporary lapse of critical evaluation of products which may be advertised in the state and county medical publications, it is imperative that a set of uniform standards be set up immediately by the *Journal of the American Medical Association*, state and county medical publication; now, therefore, be it

Resolved, That the American Medical Association be urged to maintain a critical evaluation of clinical evidence as to the use and efficacy of products advertised; that rules governing the acceptability of advertising copy be established and maintained, such rules to cover at least: (1) The elimination of unwarranted and/or extravagant claims; (2) A clear statement of the composition or the formula in all copy; (3) The pursuance of an ethical policy by all advertisers.

VICE-SPEAKER BAILEY: Reference Committee No. 3.

DR. MOFFITT: My last resolution:

RESOLUTION No. 11

WHEREAS, There has been an increasing shortage of teaching material in our medical schools; and

WHEREAS, For the future of medicine and in the public welfare it is important to have medical students trained thoroughly; now, therefore, be it

Resolved, That the C.M.A. Council review the sources of teaching material in all aspects, with the purpose of clarifying the eligibility requirements for patients in teaching institutions and establishing methods of augmenting the resources for teaching.

VICE-SPEAKER BAILEY: To Reference Committee No. 3.

Any further resolutions?

DR. R. W. HELMS (Los Angeles County): There are a number of men in our area who are dissatisfied with the present state of the Workmen's Compensation Law as it regards the free choice of physician; I am submitting this for them.

RESOLUTION No. 12

WHEREAS, Free choice of physician is one of the established ideals of the California Medical Association; and

WHEREAS, The present state workmen's compensation law conflicts with such free choice; now, therefore, be it

Resolved, That the California Medical Association study means of initiating legislative action to obtain greater medical freedom for the injured workmen.

VICE-SPEAKER BAILEY: To Reference Committee No. 3. Dr. Graeser.

DR. JAMES B. GRAESER (Alameda-Contra Costa County): This resolution is introduced to urge more emphasis on certain very important aspects of health insurance.

RESOLUTION No. 13

Resolved, That the California Medical Association Medical Services Commission and the Public Relations Department be instructed to undertake a long-term program of public education to demonstrate the economic advantages of deductibles and co-insurance in health insurance contracts.

VICE-SPEAKER BAILEY: That goes to Reference Committee No. 3.

DR. FREDERIC P. SHIDLER (San Mateo County):

RESOLUTION No. 14

WHEREAS, The physicians and surgeons of the Palo Alto, Los Altos, Mountain View municipalities of Santa Clara County have joined together for the purpose of establishing a full service, prepaid closed panel health plan available to groups employed either in Santa Clara or San Mateo County; and

WHEREAS, Such health plans force unwilling individuals to participate in them because of approval by a majority of employed individuals in a given business; and

WHEREAS, Such health plans force participant physicians to guarantee infinite service for finite compensation in advance of the need for any medical service; and

WHEREAS, The San Mateo County Medical Society has expressed its disapproval of the action of the physicians of the northern portion of Santa Clara County in proceeding with the formation of its own special prepaid closed panel health insurance plan; and

WHEREAS, Prepaid, full service, closed panel insurance schemes are disapproved by the California Medical Association as so-called "splinter" health plans; now, therefore, be it

Resolved, That the California Medical Association reaffirm its determination to act with the entire medical profession of the State of California to keep vital the California Physicians' Service as medicine's answer to prepaid panel health plans.

VICE-SPEAKER BAILEY: Referred to Reference Committee No. 3.

DR. E. W. HENDERSON (Alameda-Contra Costa County): No comment I believe necessary.

RESOLUTION No. 15

Resolved, That the California Medical Association concurs generally with the conclusions and recommendations of the Subcommittee on California's Coroner System, of the Assembly Interim Committee on Public Health, with particular reference to the following recommendations:

1. That qualifications should be established for the position of coroner in counties where it is not covered by an existing county merit system.
2. That serious consideration should be given to making the office of coroner appointive rather than elective, since public offices carrying administrative responsibility should be filled on a basis of qualifications and competence rather than popularity.
3. The coroner should not be connected with a mortuary. Coroners should be extremely cautious in delegating responsibility to private morticians.

VICE-SPEAKER BAILEY: Reference Committee No. 3. Dr. Sampson.

Dr. J. Philip Sampson (Los Angeles County): I will just give a brief resume.

In Los Angeles we have been having to work within the policies of the medical school and the doctors of the district. Other places in the United States have had the same difficulty, and Dr. Culpepper from Mississippi has introduced the resolution to the American Medical Association requesting that they set up standards to give it entirely to free enterprise.

RESOLUTION No. 16

Whereas, Dr. J. P. Culpepper, Jr., for the Mississippi delegation, introduced the following resolution to the House of Delegates of the American Medical Association, which reads as follows:

> "Whereas, It is imperative that a climate of free enterprise and ethical, private professional practice prevail toward the end of providing all Americans with the best possible medical care; and
>
> "Whereas, Corporate, and tax-subsidized practice manifestly defeats these ends of service; and
>
> "Whereas, There patently exists a barrier to these ends in the device of a tax-supported medical school that is engaged in the practice of medicine in which fees are levied and collected under a policy allowing this practice to employ physicians; now therefore be it
>
> "*Resolved*, That the American Medical Association reaffirm its unalterable opposition to socialized and state subsidized medicine regardless of the form that it may assume; and be it further
>
> "*Resolved*, That the House of Delegates of the American Medical Association is of the opinion that these principles should be considered by constituent and component medical societies together with all other facts pertinent to the local situation in all controversies arising in the employment of the medical faculty by state (tax) supported medical schools and be fully considered in effecting action within the framework of this policy."

Therefore, by this body, be it

Resolved, That the House of Delegates of the California Medical Association affirm Dr. Culpepper's resolution; and be it further

Resolved, That the delegates to the American Medical Association from the California Medical Association be instructed to aid and assist Dr. Culpepper's resolution.

Vice-Speaker Bailey: Thank you, Dr. Sampson. That goes to Reference Committee No. 3.

Dr. Dave F. Dozier (Sacramento): This came up before and is reintroduced for more mature consideration at this time.

RESOLUTION No. 17

Whereas, Nonspecified funds distributed by the American Medical Educational Fund are equally divided among medical schools regardless of their needs; and

Whereas, The sum of $100,000 to $150,000 represents a relatively small amount to each of the 78 medical schools in this country—the average school receiving not more than $2,000 or $3,000; and

Whereas, California's own, private, nonland-grant schools (that is, not state supported) are each in need of all monies available, and are indeed in serious jeopardy of their very existence; and

Whereas, Land-grant medical schools in this state have been in the past adequately sustained by our Legislature; therefore, be it

Resolved, That any fund contributed by the California Medical Association to the American Medical Educational Fund be earmarked as restricted to non-land-grant schools of medicine located in California.

Vice-Speaker Bailey: Reference Committee No. 2.

Dr. Dozier: I have a second resolution, economic protection of C.M.A. presidents during incumbency.

RESOLUTION No. 18

Whereas, Service as president of California Medical Association entails tremendous personal, professional and economic sacrifices; and

Whereas, Income tax structures are such as to prevent the average doctor from accumulating any appreciable amount of operating capital; and

Whereas, These facts may well prevent fine dedicated doctors from accepting the supreme opportunity to serve the C.M.A., who otherwise are wholly competent for the office of president; therefore be it

Resolved, That the Council of the C.M.A. be requested to study the entire subject of some manner of protecting the president of the C.M.A. from undue professional and economic losses during his incumbency, and if feasible, report back to House of Delegates on some method of correcting this circumstance.

Vice-Speaker Bailey: To Reference Committee No. 3.

Dr. Edgar F. Mauer (Los Angeles County): This is a brief resolution.

RESOLUTION No. 19

Whereas, The disposal of garbage and other refuse is a problem affecting the public health; and

Whereas, The proper disposal of such garbage and refuse at times constitutes a hazard to the public health; therefore be it

Resolved, That the private disposal of garbage or refuse shall be regulated with regard to the public health as conditioned by human occupancy of adjacent areas, and that the legislative representatives of the California Medical Association be instructed to utilize all means to prevent the use of public or private lands for the purpose of garbage or refuse disposal when such use shall be detrimental to the public health and welfare.

Vice-Speaker Bailey: That goes to Committee No. 3.

Dr. E. C. Rosenow, Jr. (Los Angeles County): I present this resolution in behalf of the Postgraduate Medical Education and the Pharmaceutical and

Drug Houses who enter postgraduate field on a competitive basis. We have no objection to the drug houses supporting medical education providing it is supervised at all times by recognized teaching institutions and medical organizations.

RESOLUTION No. 20

WHEREAS, Postgraduate medical education under the auspices of the legally constituted educational institutions of the United States is making progress of which the medical schools are justly proud; and

WHEREAS, There is a serious threat to its future development through the increasing inroads in postgraduate medical education on the part of the pharmaceutical houses and drug manufacturers; and

WHEREAS, These pharmaceutical houses and drug companies have engaged in the presentation of numerous postgraduate programs using various media including live programs and television, without having consulted recognized representatives of institutions of medical learning or the proper medical association, and in some instances have offered nationwide educational programs not only to practicing physicians, but by invitation, to medical students, interns, and residents; and

WHEREAS, Under the stimulation, an increasing number of pharmaceutical houses are entering the field on a competitive level; and

WHEREAS, The primary purpose of the pharmaceutical and drug houses is to sell drugs, and the primary purpose of medical schools is to sponsor medical education, and although ethical advertising is not to be condemned in any way, a clear distinction between advertising and education is essential; therefore, be it

Resolved, That this House of Delegates go on record as deploring these practices which may result ultimately in lowering standards and retarding progress in this most important phase of medical education; and be it further

Resolved, That the Council be instructed to take any action it deems necessary to restore the sole responsibility for postgraduate medical education to recognized agencies interested in medical education.

It is further recommended that the intent of this resolution be introduced by an appropriate resolution before the House of Delegates of the American Medical Association.

VICE-SPEAKER BAILEY: Reference Committee No. 3. Dr. Burwell.

DR. L. C. BURWELL (Los Angeles County): This resolution has to do with hospital accreditation. I have been asked to read all the whereases.

RESOLUTION No. 21

WHEREAS, The American Medical Association is the proper official organization representing medicine in the United States; and

WHEREAS, It is not only the privilege but also the obligation of this organization to protect and safeguard medical care to the patients and to assist in every way possible to maintain and further raise the present high standards of medicine and surgery; and

WHEREAS, The A.M.A. is the only organization which can and should speak officially for all physicians without regard to their particular field of practice; and

WHEREAS, There is a growing unrest due to the fact that the A.M.A. has not met its full obligations in regard to Accreditation of Hospitals for patient care; and

WHEREAS, There are two phases of Accreditation for Hospitals, one having to do with strictly housekeeping problems—the part which is unquestionably that of hospitals—and the other having to do with the care of the patient by the physician, staff organization and, of course, the intern and resident training program; and

WHEREAS, If there is not an early, acceptable discharge of this obligation, it will be increasingly difficult to execute this responsibility to the patient; to provide for him the best medical service in the most economical fashion. Now, therefore, be it

Resolved, That the American Medical Association be urged to assume its true responsibility by establishing a plan for Accreditation of Hospitals to be limited to the problems of patient and physician, and staff organization and the intern and resident training program; and be it further

Resolved, That if the American Hospital Association still has the desire to assist in the Accreditation of Hospitals that they be urged and invited to cooperate with the American Medical Association by limiting their accreditation activities to the strictly physical problems of hospital care which unquestionably is their responsibility; and be it further

Resolved, That at this meeting, May 1, 1955, of the California Medical Association, those who are delegates to the American Medical Association present this or similar resolution to the House of Delegates of the American Medical Association.

Mr. Chairman, in order that that may be acted upon at the forthcoming House of Delegates of the American Medical Association I'd like to have this treated as an emergency measure.

VICE-SPEAKER BAILEY: Thank you very much, Dr. Burwell, it shall so be, but the rules being a little changed since last year, this will all be taken up by the reference committees at this meeting. That goes to Reference Committee No. 3. Any further resolution?

DR. SAM S. WOOLINGTON (Los Angeles County): Concerned with the possibility that this statement, "My child got polio; we could not afford to give it an injection," might come to haunt us at some future date, the doctors in Long Beach branch of Los Angeles County Medical Association developed a polio-vaccine program providing for needy children. The details of that program are available to anyone who would like to check with us.

RESOLUTION No. 22

Whereas, There are many children in our California communities who will not be reached by the mass polio inoculation program of first and second graders, and whose parents cannot afford to pay for the injections of polio vaccine; and

Whereas, It is the traditional responsibility of the medical profession to see that medical care is available to all and that no one need be deprived because of inability to pay; and

Whereas, It is our responsibility to handle these matters as far as possible on a voluntary nongovernmental basis; therefore be it

Resolved, That the California Medical Association urge its member associations and local communities to set up polio vaccine programs to provide the injections when the vaccine is available on a voluntary nongovernmental basis for needy children whose financial eligibility for such care has been reliably established by proper screening procedures.

Vice-Speaker Bailey: Referred to Reference Committee No. 3.

Dr. Owen F. Thomas (Sonoma County): This resolution is in regard to Hoover Commission Recommendation.

RESOLUTION No. 23

Whereas, The California Medical Association should be concerned about the number of people given medical care by the Federal Government; and

Whereas, The California Medical Association should be concerned about the numbers of professional personnel whose time is occupied in giving this medical care; and

Whereas, The California Medical Association should be concerned about the cost of rendering this medical care; and

Whereas, The Hoover Commission has recommended changes in government organization which will tend to correct this undesirable situation; therefore, be it

Resolved, That the California Medical Association go on record as favoring the adoption of the recommendations of the Hoover Commission regarding federal medical care; and, therefore, be it further

Resolved, That the California Medical Association instruct its delegates to the American Medical Association to support similar resolutions in the House of Delegates of the American Medical Association.

Vice-Speaker Bailey: Committee No. 3. Any further resolutions? New Business.

Speaker Charnock: Twenty-nine resolutions have just been presented. This is the last opportunity you will have of presenting resolutions.

We have one or two announcements to make. The Committee on Committees will meet at 2:00 p.m. Monday, Room 5001.

Do not forget that all wives and doctors are invited to the Auxiliary Reception this afternoon between five and seven in the Rose Room, honoring Mrs. Arlo Morrison. Tickets for the President's dinner Monday evening are still on sale in Room No. 2.

Some of the delegates, some of the alternates who have been seated as delegates still do not understand that they vote as delegates when seated as such and their delegation chairman will so instruct them.

One-half hour after the recessing of this meeting the district delegates from District No. 11 will meet in Room 2045.

On Monday, at 9:30 a.m. in Room 2062, the delegates from Riverside, San Bernardino, Imperial and San Diego counties will meet. San Francisco delegates will have a caucus at 8:00 o'clock Wednesday morning in Room 2040.

Reference Committee No. 4 will meet in Room 2006 at 9:00 a.m. Monday morning, and C.P.S. Reference Committee will meet in Room 2127 Monday afternoon at 1:30.

The caucus of the Los Angeles delegation will meet formally at 2:00 p.m. on Monday afternoon in the Comstock Room on the second floor. That is the Fourth District, comprises Los Angeles County.

Reference Committee No. 3 has not yet been able to decide when it will meet. We know where, but not when; we will have that information for you as soon as it is available. Dr. Dozier.

Dr. Dozier: Reference Committee No. 1, which has to deal with reports of officers and committees, will meet in about fifteen minutes in Room 2005 to consider particularly Dr. Murray's report on Public Relations. The committee will meet otherwise regularly to consider unassigned business tomorrow morning starting at 9:30. Dr. Murray will not be able to be present tomorrow or Tuesday and so we beg your indulgence for this quickie meeting to consider this particular report.

Speaker Charnock: That will be a meeting of Reference Committee No. 1. Dr. Weyrauch will tell us when Reference Committee No. 3 will start its deliberations.

Dr. Weyrauch: Reference Committee No. 3 will meet in the English Room tomorrow morning at 9:00 a.m.

Speaker Charnock: Reference Committee No. 3 will start its deliberations at 9:00 a.m. in the English Room.

I will request that the chairmen of the Reference Committees come to the desk to get their material. If there is no further business the House will recess. Reference Committee No. 2 has not told us yet when they will meet.

Dr. Hill: Just a moment, please, Mr. Speaker. Reference Committee No. 2 will meet at 1 o'clock tomorrow afternoon in Room 2051.

SPEAKER CHARNOCK: One o'clock Monday, Room 2051.

We stand in recess until 9:30 Wednesday.

. . . The session was recessed at 4:30 p.m.

Wednesday Morning Session

The Wednesday morning session of the House of Delegates of the California Medical Association was held in the Ballroom of the Sheraton-Palace Hotel, San Francisco, California, Wednesday, May 4, 1955. The meeting was called to order by Vice-Speaker Bailey, of Los Angeles, California, at 9:30 a.m.

VICE-SPEAKER BAILEY: The House will be in order.

The first order of business is the Supplemental Report of the Credentials Committee, Dr. Francis Wisner, chairman. Will you make your report of it, Dr. Wisner?

DR. FRANCIS P. WISNER: Mr. Speaker, there is a quorum present. I move that we accept the visual roll call as evidence of the constitution of the House of Delegates.

VICE-SPEAKER BAILEY: Is there a second to that motion?

. . . The motion was seconded, put to a vote, and carried.

VICE-SPEAKER BAILEY: The roll call is completed. The next item of business is the Secretary's announcement of the Council's selection of place for the 1956 annual session.

EXECUTIVE SECRETARY JOHN HUNTON: The Council has selected Los Angeles, the first week of May 1956 for the annual convention.

ELECTION OF OFFICERS

VICE-SPEAKER BAILEY: Thank you. The next item is election of officers, the first being the President-Elect. Are there any nominations for President-Elect? Dr. Ewing L. Turner, of Los Angeles.

DR. EWING L. TURNER (Los Angeles): Mr. Speaker, the man whose name I am placing in nomination was born in 1893, came to California in 1902, and has lived here ever since. This man has not resided in any one area, but has resided all over California. At various times he has lived in Contra Costa County, San Bernardino County, Modoc County, Yolo County, Sacramento County, San Diego County, San Francisco County, and he hasn't been thrown out of Los Angeles County since 1929.

This gentleman served in the United States Army in 1917, he received his A.B. degree from the University of California in 1921, his M.D. degree from Harvard in 1925. He was for four years at the University of California Hospital in San Francisco.

In 1929 he came to Los Angeles County where in his spare time he practiced urology. He has served on the Los Angeles County Medical Association Council for six years, on the C.M.A. Council since 1947. He has been Vice-Speaker of this body for six years, he has been Speaker of this House for three years.

This man is past president of the Los Angeles Urological Society, the Hollywood Academy of Medicine, the Barlow Society for Medical History, and the Medical Symposium Society. Presently he is Associate Clinical Professor of Surgery at U.S.C., a member of the American Board of Urology, chairman of the Legislative Committee of the American Urological Association and alternate delegate to Dr. Vincent Askey to the American Medical Association.

This man is a man of proven ability, a tireless worker, a man of honor, integrity, and a man of character and high principles, a man who has worked long and hard and faithfully for all of us and for all of organized medicine, a man who is truly representative of all those great things that our great medical profession stands for in California. As chairman of the Los Angeles delegation it is my very high honor to place in nomination for the office of President-Elect of the California Medical Association my good friend and a friend of all California medicine, Dr. Donald A. Charnock, of Los Angeles.

VICE-SPEAKER BAILEY: Thank you, Dr. Turner.

DR. SAMUEL R. SHERMAN (San Francisco): Mr. Chairman, fellow delegates: During his wanderlust days Don Charnock chose to spend some time in San Francisco, where he received a major part of his secondary school education. While there he went to a school known as Mission High School, which for those of you who are not in San Francisco can be described as a high school in a tough part of San Francisco. There he fulfilled one of the principal prerequisites of that school: he learned to fight. If you couldn't fight in Mission High School you just didn't live to graduate.

He learned to fight so well that I feel this quality endears him to me as being a logical candidate for President-Elect of the California Medical Association. We need someone in that organization who will continually fight the doctor's problems, who will continue to fight their battles and will carry the doctor's story to the public. For this I think Don Charnock is eminently qualified and I take great pleasure to second his nomination.

VICE-SPEAKER BAILEY: Any further nominations? Dr. Dave Dozier, Sacramento.

DR. DAVE F. DOZIER (Sacramento): It is a great pleasure to second the nomination for President-Elect of C.M.A. of Dr. Don Charnock. I have known Don for more years than I think any other man here with the possible exception of Don Lum, and I can remember in 1921, when we were both in Boston, it was at Christmastime and cold; our room was cold, so we went to church. He has been a grand guy through the years; it is a pleasure to second the nomination of Don Charnock.

VICE-SPEAKER BAILEY: Dr. J. J. Crane, of Los Angeles.

Dr. J. J. Crane (Los Angeles): I'd like to ask Don publicly which county has the best fishing. I also would like to second Don's nomination.

Vice-Speaker Bailey: Thank you, Dr. Crane. Are there any further nominations?

. . . A motion was made and seconded the nominations be closed.

Vice-Speaker Bailey: A motion has been made and seconded the nominations be closed. All those in favor will say aye. The nominations are closed. Dr. Turner.

Dr. Ewing L. Turner: I rise to a point of personal privilege, Mr. Speaker. We have several alternates who are not seated and we have a shortage of seats for the Los Angeles delegation's list. I wonder if we could beg your indulgence while we seat the alternates.

Vice-Speaker Bailey: Yes, that is very important. I wonder if any of the Los Angeles delegation who are seated here who do not have ballots will hold up their hands.

Would you have Mr. Young bring the ballots in, please, for these alternates? He is passing them out.

Vice-Speaker Bailey: Will you tell everyone who doesn't have ballots as Mr. Young passes them out so he will see how many. Now the question comes how you will vote for Dr. Charnock, by acclamation?

. . . A motion was made and seconded to vote for Dr. Charnock by acclamation. The motion was put to a vote, and carried. . . .

Dr. Donald Charnock: Ladies and gentlemen, in accepting your gracious selection I am conscious of the great honor accorded me. I accept this with deep humility and with the full realization of the challenge which this high office presents.

Speaker Charnock: We have a lot of business to conduct today. The next order of business is the election of a Speaker of the House of Delegates. Dr. Fred Tyroler, here you are, Los Angeles County.

Dr. Frederic N. Tyroler (Los Angeles County): Mr. Speaker, members of the House of Delegates: I wish to place in nomination the name of our present Vice-Speaker. I have known Dr. Bailey for the past 25 years since we attended college down the Peninsula. He was an outstanding man there and in following his career in the intervening years I have seen him reach the top in the practice of medicine. At the same time he has given tirelessly of his energy on behalf of medicine generally. Specifically, ten years in the Los Angeles Medical Association Council, one year as its president, and since then a member of the Board of Trustees. During his year as president he was instrumental in forwarding budgetary economies and streamlining of personnel and procedures that has resulted in the saving of some $100,000 annually to the Los Angeles C.M.A.

I think that is worth mentioning here, since the Speaker of this House becomes automatically a member of the Executive Committee of C.M.A. I think Dr. Bailey's special experience should be of invaluable aid to that committee. He served two four-year terms on the Board of Medical Examiners, seven years on the California Medical Council, fortunately holding both those jobs for several years so that he has been able to act as unofficial liaison officer between the Council and the Board of Medical Examiners.

For the past three years he has been Vice-Speaker of this House, during which time there has been no question of his ability, the firmness of his decisions, or his integrity.

All this experience makes him definitely the most logical candidate to succeed to the Speakership. Mr. Speaker, with the best interests of the California Medical Association at heart, I consider it a duty as well as a privilege to nominate Dr. Wilbur Bailey for Speaker of the House of Delegates.

Speaker Charnock: Any further nominations? Dr. Cass.

Dr. Donald Cass: Mr. Speaker, members of the House: I propose the name of Dr. James Doyle for Speaker. The reason I propose his name is because Dr. Doyle is the overwhelming choice of the doctors in Los Angeles County.

Dr. Doyle has been very active in the workings of organized medicine, he is an Associate Professor of Gynecology, he has served two terms on the Council of the Los Angeles County Medical Association, he has been a member of our Legislative Committee, working in Sacramento with Dr. Kilroy and Dr. Murray the past few years. He has been very active in our Speakers' Bureau in Los Angeles, giving of his time freely. He has worked long and hard with the Public Health League, he is an experienced presiding officer and parliamentarian. Dr. Doyle was president and presiding officer of his county medical branch, he was president and presiding officer of the Beverly Hills Rotary Club, he was president and presiding officer of the Beverly Hills Chamber of Commerce.

I have known Dr. Doyle for many years. He has many friends, and I repeat again the Los Angeles caucus at the informal meeting chose Dr. Doyle two to one over his opponents, and in the formal caucus the yes vote was three to one for Dr. Doyle. It gives me a great deal of pleasure to nominate Dr. Jim Doyle to succeed Dr. Charnock.

Speaker Charnock: Dr. Gibbons.

Dr. Henry L. Gibbons, III (San Francisco): Wilbur Bailey was beginning his second four-year term on the State Board of Medical Examiners when my appointment began about four years ago; he is a past president of that body. In my opinion his experience on the Board of Medical Examiners, along with his many other official duties that you have just heard about has been of inestimable value to him and this experience, I think, will serve well in his role as Speaker. I therefore second with great pleasure the nomination of Wilbur Bailey for Speaker of the House.

SPEAKER CHARNOCK: Dr. Ewens, of Los Angeles County.

DR. FREDERIC EWENS (Los Angeles County): Thank you, Mr. Speaker. I wish to second the nomination of James Doyle. It is my earnest opinion that James Doyle does not suffer from lack of ability to handle the House of the C.M.A. It is my firm opinion that he has had ample experience in the diplomacy of handling problems. It is my experience that James Doyle has the ability to make the County of Los Angeles a very happy county. It is the opinion of the people in Los Angeles County that James Doyle is their choice, and I feel that as long as the County of Los Angeles has elected in their caucus James Doyle three to one it certainly must mean that they want James Doyle.

SPEAKER CHARNOCK: Dr. Blong, Los Angeles County.

DR. BLONG (Los Angeles County): It gives me pleasure to second the nomination of Jim Doyle. Before I do that I think in all fairness we want to look at the other side of the question. I think a man should be rewarded for good work done. If anything I say here would be construed as preventing that; I would not come up here, but I believe in the expanding economic structure of our state medical association we have plenty of opportunity to reward; we have many things opening up. I don't think any man will ever be deprived of the right to go up which is always his right and depends on his ability. My plea, in common words, is to open this thing up.

Some of you in the outlying counties know something of the work of the Public Health League. Years ago when we started the Public Health League we had to wait two years before we could inaugurate that movement. Why? The plea was there wasn't machinery set up for it. I asked the question then, "What machinery?" I ask it now. Since then I have seen younger men coming up in their societies, younger men eager and willing to go, and what has happened? They have been discouraged because they didn't have a chance to carry the ball. They will tell you that.

Reward a man for good work, yes; seize our opportunity to profit by that work, yes; carry the ball too long, no. What would you think of a football star if the coach should call him in after a season and pat him on the back and say, "Bill, you have done a wonderful job this year, we are going to let you carry the ball for the next two years." I practice what I preach. Out in our San Gabriel Valley branch they put me in unanimously as a delegate, and also on the Council. I didn't take it. There is no use putting me in an organization; let the other fellow come on up. We have sent Dr. Wadsworth up to the Council, a young man; we are sending up Ed Rosenow now, a young man, to the Council.

Now I received considerable ribbing from my friends in Los Angeles County about this young man business. What I mean by young man is not his birthday age, his span of life; what I mean is his opportunity to serve. I would like to digress and take that up a little. I have some samples of oratory in my pocket that I can hand out to any of the boys that think they are getting me down along that line. Dr. Doyle has been twice nominated. I have sat in at these caucuses a good many years. I haven't seen it but twice before, but here we have twice reaffirmed our ideas. I have sat in with Jim Doyle at Sacramento. I know something of his tact, I know something of his ability to make a decision. Dan Kilroy told you something of his ability at Sacramento. I hope you elect him. If he loses he will be a good loser and I think by that same token he should be a good winner.

SPEAKER CHARNOCK: Dr. Blong, thank you. Dr. Levy.

DR. CHARLES C. LEVY (Los Angeles): It is indeed an honor, privilege and pleasure for me to second the nomination of my old friend and fellow worker in legislative matters, Dr. Jim Doyle.

DR. SAM GENDEL (Orange County): It is with a sense of deep satisfaction that I should like to second the nomination of a man who has proved to this body his ability to carry on as Speaker of this House, Dr. Wilbur Bailey.

SPEAKER CHARNOCK: The names of Dr. Wilbur Bailey and Dr. James Doyle have been placed in nomination. Are there any further nominations? Hearing none, the chair declares the nominations closed. They are closed.

Does everybody entitled to vote have a ballot?

Drs. Crum of Alameda, Halley of Fresno, and Moffitt of San Francisco County, will act as tellers.

Will the chairman of the delegation see that all their seated delegates and alternates have ballots? We will now vote.

Dr. Crum, Dr. Halley and Dr. Moffitt, are you all here? Use No. 1 ballot. Drs. Crum, Halley and Moffitt, please come forward.

Will it make too much confusion if we proceed with the rest of the balloting? We have a full agenda today.

DR. TURNER: All the seated delegates in Los Angeles County haven't had their ballots given to them, and are now requesting ballots. Can't we hold up the vote?

SPEAKER CHARNOCK: You may.

MEMBER FROM THE FLOOR (Los Angeles County): Mr. Speaker, all the ballot pads are out as far as Los Angeles is concerned.

SPEAKER CHARNOCK: Los Angeles County is happy, you have got all your ballots. Has everybody got his ballot and finished with it? If everybody has his ballot I will announce once again the names of Dr. Wilbur Bailey and Dr. James Doyle have been placed in nomination. Has everybody turned in his ballot?

The next order of business is the election of a Vice-Speaker. Do I hear nominations? Dr. E. Vincent Askey, Alternate Delegate from Los Angeles.

DR. E. VINCENT ASKEY (Los Angeles): May I correct that? I am not an alternate sitting in this

House at all, I am a past president who has a voice and no vote so I did not vote and will not vote on any of the elections. However, I stand before you on a question of the caucus of the Los Angeles County Medical Association and I have been requested to again call to your attention certain things which have become established tradition in our association.

If you remember, I think three years ago, I rose before this same body to make a similar explanation and at that time I nominated Dr. Wilbur Bailey for Vice-Speaker. Before I make the nomination which I am going to make I want to call your attention to the fact, for some of the new delegates, of why certain people or certain groups have nominations to put before you.

Over a period of at least twenty years, to my knowledge, there has been an unwritten understanding and agreement, if I may call it a gentlemen's agreement, that Northern California shall have the chairman of the Council and the chairman of the Executive Committee and Southern California shall have the Speaker and the Vice-Speaker, so that if there seems to be in your mind a question of why Los Angeles is having all this turmoil and all, the reason is that you gentlemen have allowed Southern California to have the Speaker and the Vice-Speaker, with one or two irregular exceptions which always occur, and they were ironed out without any trouble or without any harsh feelings whatsoever.

Southern California wishes to continue with the gentlemen's agreement whereby we have the Speaker and the Vice-Speaker and Northern California the other appropriate, equal offices; therefore, at the request of the Los Angeles County caucus I have been asked to make this nomination for the Vice-Speakership.

There have been two caucuses, the first held at Los Angeles County Medical Association Building to which the southern counties were invited. At that time there was only one nominee made or given for the Vice-Speakership. Another caucus of the Los Angeles County Association only was held, at which time only one nominee was named.

It gives me great pleasure, therefore, to nominate the man who was the sole nominee of our caucuses. This man has been a past secretary-treasurer of the Los Angeles County Medical Association, he is a past president of the Los Angeles County Medical Association, a past member of our Board of Trustees of Los Angeles Medical Association and he has been a delegate to the American Medical Association and has given excellent and fine service. I am sure that he has the ability and the desire to work for the best interests of medicine. I think that he should be given your consideration, I believe he should be elected. It gives me great pleasure to nominate as Vice-Speaker of this organization Dr. Paul D. Foster, of Los Angeles.

SPEAKER CHARNOCK: Thank you very much, Doctor. The name of Dr. Paul Foster was put in nomination.

DR. WILLIAM E. COSTOLOW (Los Angeles): I wish to second the nomination of Dr. Paul Foster, for a number of years a member of the Los Angeles County Medical Association and a member of the Board of Trustees. I have had the opportunity to work with Dr. Foster during the past year as chairman of the Board of Trustees; I had the opportunity of appointing Dr. Foster to some of our important committees. He has always turned in an excellent performance, straightforward and efficient, as Dr. Askey has told you, in the various groups of organized medicine.

I might also add that he has had a great deal of experience as chairman of various civic and lay organizations. I feel that he is well qualified, he is a good fellow and well qualified to act as Vice-Speaker.

SPEAKER CHARNOCK: Thank you, Dr. Costolow. Dr. Ruddock first. Dr. Ruddock.

DR. JOHN C. RUDDOCK: Mr. Speaker and members of this House: For the past 36 years I have been a member of this House. I haven't missed any meetings, and during that time I have seen this organization grow and it amazes me to find that it is so large and there is so much business to be done it is a little unpleasant for me to second the nomination of a friend of mine to put him into such a job where there is so much work, but it is very pleasant that I can nominate a friend, or second a friend.

I'd like at this time to second the nomination of Dr. Paul D. Foster, for Vice-Speaker.

SPEAKER CHARNOCK: Dr. Mauer.

DR. EDGAR F. MAUER (Los Angeles): Mr. Chairman and members of the House of Delegates: It is my distinct pleasure to place the name of Dr. Robert J. Moes, of Los Angeles, in nomination for the office of Vice-Speaker. Dr. Moes has been a member of the Los Angeles County Medical Association for 25 years and during that time has served on most of the important committees. At this time he is chairman of the Library Committee, a very important post so far as the learning of our members is concerned.

During the war years he was chosen by Dr. Uhl as the City Health Officer, as to conditions in the civil defense program in that large area, and he attended this job very faithfully. He is a man of very high professional attainments, a member of the board of his hospital, California Lutheran Hospital, in Los Angeles, a member of the Council three terms, and served faithfully whenever given a committee.

He is presently a member of the Reference Committee No. 2 at this meeting of the California Medical Association and has been a staunch advocate of maintaining a balanced budget. I must say that his candidacy has flowered here in San Francisco as a spontaneous movement and I myself also say he is neither too young nor too old. I would like to place in nomination the name of Dr. Robert J. Moes.

SPEAKER CHARNOCK: Dr. Shaw next.

Dr. Gerald W. Shaw: Mr. Speaker and fellow doctors: It gives me great pleasure to second the nomination of Paul Foster. I have seen his work in American medicine and he has done a very splendid job there and is very efficient in what he does.

Dr. Herman Allington (Alameda): I have known Dr. Paul Foster for 25 years, since the days of our graduate training. I have followed his excellent work in organized medicine with admiration for a number of years. He has the unanimous support of his own caucus. I should like to bring him support from Northern California.

Dr. Fred A. Olsen (Humboldt County): I would, Mr. Speaker, second the nomination for Vice-Speaker of the House, Paul D. Foster, who has worked on many committees for the C.M.A. and for his own county. He has come up through the lines as chairman of his own county society and we as younger delegates in the north have found him very helpful, a tireless and experienced worker who has time to do a job well.

A Member: I'd like to second the nomination of Dr. Moes for Vice-Speaker.

Dr. Donald Cass (Los Angeles): I have known Dr. Paul Foster for a little over 20 years. As has been stated, he is a tireless worker and I am sure his interest is in the private practice of medicine. I second the nomination of Dr. Paul Foster.

Dr. J. E. Young (Fresno): If you will bear with me, I'd like to read into the minutes of the California Medical Association, House of Delegates, proceedings of 1952, as reported to us in the official Journal, Volume 77, No. 1. I read from page 85, where what I have to say is something like having a baby; it is easy to conceive but very difficult to deliver. I read you this statement at this time. I quote:

"After talking it over with the people of the House of Delegates and the county it was decided in the best interest of California medicine that it would probably be a good idea if it were sort of unbroken, that the chairman of the Council and chairman of the Audit Committee, who was Executive Committee chairman, should be from the north. When it was found that if we had more votes in Southern California it might be well if we had better representation for the southern end of the state and a sort of gentlemen's agreement was that the Speaker of the House of Delegates and the Vice-Speaker should all be located in Southern California. That was differed with by one of our most respected and capable leaders of California medicine and it is a pleasure indeed to be the member of the House that conducts its business according to constitutional means, but by such procedures we hold our officers in respect but we cannot hold them all."

It is my opinion, therefore, that such procedure as has been suggested by a past Speaker of this House is contrary to the conditions of the California Medical Association. This so-called gentlemen's agreement in effect actually separates the remainder of the State of California from holding office in this body and those of us who are from other parts of the State of California other than Los Angeles or other metropolitan areas of this state reject that concept and we serve you notice here and now that so long as we are members of this House you shall contend with us for these offices.

It is certainly true that those of us who are members of this House are the sounding board of the officers of our organization and it is by their addresses to us that they are able to meet and speak to the people of California the voice of organized medicine, and it is because of that concept that we are therefore responsible for what they have to say and when we disagree with them it becomes our responsibility then to call them to task before some other comments are made.

It is also my opinion that so long as this organization abides by constitutional means as we have so readily written and listed in our own constitution, we will remain standing, and our prestige and strength in this state against our enemies will remain unimpaired. I urge you, therefore, to follow constitutional means in these processes, and because that issue has been injected into the election it gives me pleasure then to second the nomination of Dr. Moes, of Los Angeles.

Speaker Charnock: The nomination of Dr. Moes has been seconded. Harry Garland, San Francisco.

Dr. L. Henry Garland (San Francisco): It has been my privilege to be a member of this association for almost 30 years, to be a delegate to this House for 25 of them. I realize the gravity of the decision you are about to make and it is my distinct privilege to second the nomination of Dr. Moes for Vice-Speaker.

Speaker Charnock: The names of Dr. Paul Foster and Dr. Robert Moes have been placed in nomination. Are there any further nominations for the position of Vice-Speaker? It has been moved and seconded that the nominations be closed.

Those in favor will signify by saying aye; to the contrary? They are closed.

You will proceed to vote. Dr. Leslie B. Magoon, of Santa Clara, Dr. Bradley C. Brownson, Dr. J. W. Moore, of Ventura, will act as tellers, and will you come forward?

Dr. Magoon, Dr. Brownson, Dr. Moore; Ballot No. 2.

At this time the chair will announce that Dr. Doyle has been elected Speaker.

We will now vote on Ballot No. 2, if you please.

DISTRICT COUNCILORS

Vice-Speaker Bailey: Gentlemen, in the interest of saving time may we have order and proceed to the District Councilors. First District, Francis E. West, San Diego, term expires. Will the chairman of the delegation from the First District make the report of the decision of San Diego County, comprising First District?

CHAIRMAN OF THE FIRST DISTRICT: We have an announcement to make to the House that in lawfully constituted assembly under Section 6, as chairman and secretary of the meeting, by written ballot Dr. Francis E. West was unanimously elected to succeed himself.

VICE-SPEAKER BAILEY: Under those sections, unless some comment from the House—I hear none—Dr. West is declared elected.

Next is the Fourth District, Dr. J. Philip Sampson, Santa Monica, term expires. Will the chairman of the Los Angeles delegation make a report? Is Dr. Turner around? Well, that report will be made later.

Next we come to Seventh District, Hartzell H. Ray, San Mateo, term expires.

CHAIRMAN OF SEVENTH DISTRICT: The Seventh District has met and elected James H. McPharlin, of Monterey County, as its District Councilor.

VICE-SPEAKER BAILEY: Thank you. Under the circumstances unless there be a challenge he is declared elected. He is elected.

The next is the Tenth District, Warren L. Bostick, Dr. Warren L. Bostick, Mill Valley, term expires. Will the chairman of that delegation make a report? Dr. Russell, Marin County.

DR. CARROLL A. RUSSELL (Marin County): As chairman of that delegation we duly met and have unanimously nominated Warren L. Bostick to succeed himself.

VICE-SPEAKER BAILEY: Thank you, Dr. Russell. Unless objection — hearing none — he is declared elected.

COUNCILORS-AT-LARGE

Here we have Councilors-at-Large for three-year terms.

First one, Dr. Benjamin Frees, Los Angeles, term expires, Councilor-at-Large. Any nominations for this position? Dr. Benjamin Frees.

DR. BENJAMIN FREES: Mr. Speaker, fellow delegates: It is a great privilege for me to stand here today and say that since 1946, after 40 years of membership in this organization, that I feel I should step aside for younger men and in doing so to have the privilege accorded me to choose my successor. By unanimous choice of the caucus of the Los Angeles County Medical Association I am going to give you the name of a man who graduated from Harvard, who came to Pasadena and has practiced there 15 years, who has been president of the Heart Association, who has been president of the Los Angeles Internists Association, who is Associate Professor of the U.S.C. Medical School, and who has been on various committees of this organization.

He is chairman of the Educational Program Committee of this body and he is editor of Audio-Digest. I give you a man of great stature. I place in nomination for Councilor-at-Large, Edward C. Rosenow, Jr., of Pasadena.

VICE-SPEAKER BAILEY: Are there further nominations to this position? No further nominations? Is there a motion to close the nominations? It has been moved and seconded to close the nominations. All those in favor will say aye. All those in favor of Dr. Rosenow will say aye. Dr. Rosenow is declared elected.

Again as Councilor-at-Large for three years, name of Hollis L. Carey, of Gridley, California, term expires. Dr. Sherman.

DR. SAMUEL R. SHERMAN: Mr. Chairman, fellow delegates: It gives me great pleasure to place in nomination for a second term as Councilor-at-Large a man to succeed himself, the name of Hollis L. Carey, of Gridley, California. Dr. Carey has served three years in this position and has served well. Besides that, all of you will remember that for the past year he has served brilliantly and ably as chairman of your great Medical Services Commission, so again I take great pleasure in presenting Dr. Hollis L. Carey, to succeed himself.

VICE-SPEAKER BAILEY: Any further nominations?

DR. A. E. BERMAN (Sacramento): Mr. Chairman, members of the House of Delegates: Representing the delegates from No. 10 Council District, it gives me great pleasure to second the nomination of Dr. Hollis Carey.

VICE-SPEAKER BAILEY: Are there further nominations?

. . . It was moved and seconded the nominations be closed.

VICE-SPEAKER BAILEY: It has been moved and seconded the nominations be closed. All those in favor of closing the nominations say aye. All in favor of Dr. Hollis Carey will say aye. Dr. Hollis Carey is declared elected.

DR. EWING L. TURNER (Los Angeles): I regret that I was out of the room when the call was announced for District No. 4 selection.

VICE-SPEAKER BAILEY: We welcome you back again. Will you explain what the District did?

DR. TURNER: The Los Angeles delegation selected for District Councilor of Fourth District Dr. E. E. Wadsworth, Jr.

VICE-SPEAKER BAILEY: Dr. E. E. Wadsworth, Jr., has been elected unless there is a challenge from the floor. Hearing none the chair declares him to be elected.

DELEGATES TO A.M.A.

Next we come to delegates of the American Medical Association. The first incumbent is Dr. Robertson Ward, of San Francisco, term expires.

DR. EMMETT L. RIXFORD (San Francisco): As vice-chairman of the San Francisco delegation it is my pleasure to be requested by that delegation to place in nomination as delegate to the American Medical Association the name of a close personal friend of mine. I place in nomination the name of Robertson Ward. Bob Ward has been known to many of us and is widely known throughout the state. He has been a delegate to the A.M.A. for at least the last three terms. He has served us well there. Mr. Speaker, I nominate Robertson Ward.

VICE-SPEAKER BAILEY: Any further nominations for this position? Any further nominations? The chair declares the nominations closed, hearing no further nominations.

All those in favor of Dr. Ward will say aye. Opposed? Dr. Ward is declared elected.

The next office is that of Sam J. McClendon, San Diego, term expires. Any nominations?

DR. ARTHUR A. MARLOW (San Diego County): Mr. Speaker, fellow delegates: Words would be superfluous. I propose the name of Dr. Sam J. McClendon to succeed himself as delegate to the American Medical Association.

VICE-SPEAKER BAILEY: Thank you, Dr. Marlow. Are there any further nominations? Hearing none the chair declares the nominations closed.

Those in favor of Dr. McClendon will say aye. Dr. McClendon is declared elected.

Next, Dr. Eugene F. Hoffman, of Los Angeles, term expires.

DR. JOHN C. RUDDOCK (Los Angeles): Mr. Speaker and members: Again I arise. It gives me a great deal of pleasure to nominate Dr. Eugene Hoffman to succeed himself as delegate to the American Medical Association.

VICE-SPEAKER BAILEY: Eugene Hoffman has been nominated. Dr. Boyer, from Los Angeles.

DR. KENNETH H. BOYER (Los Angeles): It gives me great pleasure to second Dr. Hoffman's nomination.

VICE-SPEAKER BAILEY: Thank you, Dr. Boyer. Any further nominations? Hearing none the chair will declare the nominations closed. Dr. Hoffman is declared elected.

Dr. John W. Green, of Vallejo, term expiring.

DR. L. H. FRASER (Alameda County): I wish to nominate for A.M.A. Delegate the man who served us so well, not only as our president, but also as your president two years ago, John W. Green.

VICE-SPEAKER BAILEY: Dr. John W. Green has been nominated.

DR. BOSTICK (Marin County): It gives me great pleasure to second the nomination of Dr. Green as delegate.

VICE-SPEAKER BAILEY: The chair, hearing no objection, declares the nominations closed. Dr. Green is nominated.

All those in favor of Dr. John W. Green signify by the usual sign. Opposed? Dr. Green is elected.

Next is Lewis A. Alesen, of Los Angeles, term expires. Dr. Crane.

DR. J. J. CRANE (Los Angeles): Mr. President, members: I wish to place in nomination the name of Lewis A. Alesen to succeed himself. I wish this to be a rising unanimous vote.

VICE-SPEAKER BAILEY: Any objections? Even though the chair might not be in favor, it has to ask for further nominations. Any further nominations? Hearing none, the chair declares the nominations closed. We know Dr. Alesen is ill, he couldn't be here. All those in favor will respond by rising.

. . . Rising vote. (Applause.)

VICE-SPEAKER BAILEY: Will Dr. Crane convey our appreciation to Dr. Alesen?

Dr. Frank A. MacDonald, Sacramento, next, term expires.

DR. DOZIER: I'd like to place in nomination the name of Frank A. MacDonald to succeed himself.

VICE-SPEAKER BAILEY: Any further nominations to this position? Dr. Desimone.

DR. LEON O. DESIMONE (Los Angeles): It gives me great pleasure as a southerner to support a northerner. I second the nomination of Frank MacDonald.

VICE-SPEAKER BAILEY: Any further nominations? The chair hearing none, declares the nominations closed.

Those in favor of Dr. MacDonald say aye. Opposed? Dr. Frank MacDonald is declared elected.

Dr. Paul D. Foster, Los Angeles, term expiring. Dr. Donald Cass.

DR. DONALD CASS (Los Angeles): I wish to nominate Paul Foster to succeed himself. He is the choice of the Los Angeles group and I will say that he is a very fine delegate.

VICE-SPEAKER BAILEY: Any further nominations?

DR. JOSEPH M. DE LOS REYES (Los Angeles): I'd like to second the nomination of Paul D. Foster, Mr. Chairman.

VICE-SPEAKER BAILEY: Any further nominations? Hearing none, the chair declares the nominations closed.

Those in favor of Dr. Foster respond by saying aye. Dr. Foster is declared elected.

At this time the chair will announce that Dr. Paul Foster has been elected as Vice-Speaker. . . . Applause.

VICE-SPEAKER BAILEY: The next offices are those of Alternates to the American Medical Association. The first one is Henry Gibbons, III, of San Francisco, alternate to Dr. Robertson Ward.

DR. ROBERTSON WARD: Mr. Speaker, it gives me great pleasure to nominate Henry Gibbons to succeed himself as alternate delegate to the American Medical Association. We have got him in training now and hope before long he can step up to the position of delegate.

VICE-SPEAKER BAILEY: The name of Dr. Henry Gibbons has been put in nomination. Are there any further nominations? The chair, hearing none, declares the nominations closed.

Those in favor of Dr. Henry Gibbons as alternate will signify by saying aye. Dr. Henry Gibbons is elected.

The next office is that of Dr. A. E. Moore, San Diego, incumbent, alternate to Dr. Sam J. McClendon. Are there any nominations for this position?

Dr. Ralph M. King (San Diego County): I'd like to nominate Dr. A. E. Moore to succeed himself as alternate to the A.M.A.

Vice-Speaker Bailey: The name of Dr. Moore has been placed in nomination to succeed himself. Are there any further nominations? The chair, hearing none, declares the nominations closed.

Those in favor of Dr. Moore will signify by saying aye. Contrary minded? Dr. Moore is elected.

The next office, No. 3, Frederic S. Ewens, Manhattan Beach, alternate to Eugene Hoffman. Dr. Hoffman.

Dr. Eugene Hoffman: Mr. Speaker, members of the House: I wish to place in nomination, to succeed himself as alternate to the American Medical Association, Frederic Ewens. He has been a tireless worker and we need him back. Thank you.

Vice-Speaker Bailey: The name of Frederic S. Ewens has been placed in nomination. Dr. Foster.

Dr. Paul D. Foster: I'd like to second the nomination of Dr. Fred Ewens to succeed himself as alternate.

Vice-Speaker Bailey: Dr. Kilroy.

Dr. Dan Kilroy: Mr. Speaker, on behalf of the Sacramento delegation the north wants to repay the compliment of the south by seconding the nomination of Fred Ewens.

Vice-Speaker Bailey: The name of Dr. Fred Ewens has been placed in nomination. Any further nominations? The chair, hearing none, declares the nominations closed.

All in favor of Dr. Frederic S. Ewens will signify by saying aye. Dr. Ewens is declared elected.

The next office, Dr. Orris R. Meyers, Apple Valley, alternate to Dr. Green.

Dr. Fred A. Olson (Humboldt County): Mr. Speaker, I wish to place in nomination the name of Warren Bostick as alternate to A.M.A. for Dr. John Green as delegate, and to succeed Dr. Orris R. Meyers of Apple Valley.

At this time I wish to yield the floor to Dr. Carl Hadley of San Bernardino.

Dr. Carl M. Hadley (San Bernardino): I would like to discuss the situation of Dr. Meyers who has emigrated to San Bernardino County and is now living in Apple Valley. We wish the House to be informed on this. San Bernardino County desires that District No. 10 present a man from their own area. This is a geographic situation which our district wishes to respect. We ask for the consideration of Warren Bostick as alternate to Dr. Green, to succeed Dr. Orris R. Meyers. I should like to second his nomination. Dr. Bostick is from Mill Valley. He is 41. For three years he has been the Councilor for the Tenth District. He is a young and aggressive individual. All of us have one word to express our admiration when we see him work and that is the word "accomplishment."

Vice-Speaker Bailey: The name of Dr. Warren Bostick has been placed in nomination.

Dr. Ellis (Kern County): As a very close friend of Dr. Bostick I wish to second the nomination.

Vice-Speaker Bailey: If there are no further nominations the name of Warren Bostick has been placed in nomination. Any further nominations? The chair, hearing none, declares the nominations closed.

Those in favor of Dr. Warren A. Bostick will respond by saying aye. Dr. Bostick is elected.

Next office, Dr. J. B. Price, of Santa Ana, alternate to Dr. Lewis Alesen.

Dr. L. E. Wilson (Orange County): For the third time it gives me pleasure to nominate Dr. J. B. Price to succeed himself as alternate delegate to the American Medical Association.

Vice-Speaker Bailey: Dr. Wilson, of Orange County, has placed the name of Dr. J. B. Price in nomination. Are there any further nominations? The chair, hearing none, declares the nominations closed.

Those in favor of Dr. J. B. Price will signify by saying aye. Dr. Price is elected.

The position of alternate to Dr. MacDonald, Dr. Henry A. Randel, Fresno County incumbent.

Dr. J. E. Young: I wish to place in nomination to succeed himself, Dr. Henry Randel of Fresno.

Vice-Speaker Bailey: Dr. Young has placed in nomination Dr. Henry Randel of Fresno, as alternate to Dr. MacDonald.

Dr. MacDonald (Sacramento): I'd like to second the nomination of Henry Randel for alternate. Henry has done a swell job in the conventions we have had previously and I am sure will continue to do so.

Vice-Speaker Bailey: Dr. Desimone.

Dr. Leon O. Desimone (Los Angeles): The south is again proud to lend its support to the mid-portion of the state. I second the nomination of Dr. Henry Randel.

Vice-Speaker Bailey: Dr. Henry Randel's nomination has been seconded by the south. Any further nominations? Hearing none the chair declares the nominations closed. Dr. Randel is elected.

The next position is alternate to Dr. Paul D. Foster, Arthur A. Kirchner, the incumbent.

Dr. Charles C. Levy (Los Angeles): I would like to place in nomination the name of Dr. Arthur A. Kirchner to succeed himself as alternate to the American Medical Association. Dr. Kirchner showed the first time he was an alternate he was capable of keeping the reference committee of the A.M.A. in line. I think you will recognize his activities here this last summer.

Vice-Speaker Bailey: The name of Dr. Kirchner has been placed in nomination. Any further nominations? The chair, hearing none, declares the nominations closed.

Those in favor of Dr. Kirchner as alternate signify by saying aye. Dr. Kirchner is elected.

The next position is that of alternate to Dr. Dwight L. Wilbur, held by the late Dr. J. Frank Doughty. Dr. Wilbur.

Dr. Dwight L. Wilbur (San Francisco): Mr. Speaker, members of the House: I think all of us regret the passing of Frank Doughty. He did not only a great job for C.M.A. and California Physicians' Service, but also as delegate to the A.M.A.

In casting around for some young man in the California Medical Association to succeed Dr. Doughty and eventually hold the office of delegate to A.M.A. the name has occurred to a number of us of one of the rising young men in this area of California. Dr. Moffitt is an internist, practicing in San Francisco now for some years. Since the war he has added considerable dignity to the illustrious name which he carries. He has been a member of the House of Delegates for several years, he has been a member of important committees in the San Francisco Medical Society and is currently its president. It gives me a great deal of pleasure to nominate Dr. Moffitt as alternate delegate to the A.M.A.

President-Elect Sidney J. Shipman (San Francisco): Mr. Speaker, and members of the House: Last year I was riding back from the east with Dr. Cline, and we were talking about the matter of alternate delegates to the A.M.A. and John told me he thought it was one of the most important posts that we could select. He said that the influence of the California Medical Association would be felt in years to come by the caliber of the young men we chose as alternates and if this House has been careless in the past it should rectify that in the future, because I, and I am sure you, would like to be represented by the finest type of men we have in California in the A.M.A.

When I came to San Francisco one of the men who was kindest to me was Herbert Moffitt's father. It has been my pleasure to watch Herbert Moffitt, Jr., follow in the footsteps of his father and there is nobody I would rather have represent me in the A.M.A. than Herbert Moffitt, Jr. I therefore take great pleasure in seconding his nomination.

Dr. Leon Fox: Mr. Speaker, members of the House of Delegates: I'd like to place in nomination the name of a man who has certainly worked hard in the service of California Medical Association. He has been one of my buddies since 1931, has been a delegate since 1933 and he is not too old, certainly, to do good work. He has done good work on the Industrial Fee Schedule Committee. He is certainly an ardent worker, and that is J. G. Josephson.

Vice-Speaker Bailey: The name of J. G. Josephson has been placed in nomination.

Dr. W. L. Argo (Fresno County): I would like to propose the name of a man who also comes from a small community in the Sixth District, as Dr. Doughty did, the name of Dr. James W. Feldmayer of Exeter. Those who know Dr. Feldmayer could talk at great length of his accomplishments. It isn't my purpose to declaim at length but Dr. Feldmayer brings three important qualifications as a candidate. First, he represents that finest section of American medicine, the competent, vigorous, small town practitioner.

The second qualification which he can bring you is that of experience. He has been a delegate to the House for five years, he has been a member of reference committees for two years, he has worked tirelessly and well.

The third qualification I think very important; he has both the time and the willingness to give to this vital position. It is a pleasure to place the name of Dr. Jim Feldmayer, of Exeter, in nomination.

A Member: It gives me great pleasure, coming from the county from which Dr. Doughty has come, to second the nomination of Dr. Feldmayer and to add a word from our county on the needs of that small community represented at the A.M.A. level as well as a larger community such as San Diego, Los Angeles, San Francisco.

Dr. Feldmayer has had experience at the local level and in his county medical society, and has served on the boards of hospitals in smaller communities. I think he can replace a little bit the loss at the A.M.A. level of the country physicians that is felt by the loss of Dr. Doughty.

Dr. Hartzell Ray (San Mateo County): It is a pleasure for me to second the nomination of Dr. Joe Josephson.

Dr. Edward C. Halley: It gives me great pleasure to second the nomination of Dr. James E. Feldmayer, of Exeter.

Vice-Speaker Bailey: The names of Herbert Moffitt, Jr., Joseph G. Josephson and James Edward Feldmayer have been placed in nomination.

Member from the Floor: I suggest we do not know these men; I wonder if they'd stand. Is that in order?

Vice-Speaker Bailey: That is perfectly in order, sir. Will Dr. Herbert C. Moffitt, Jr., stand up? Dr. Joe Josephson, please stand up, and Dr. James Edward Feldmayer. . . . Applause.

Are there any further nominations for this position? The chair, hearing none, declares the nominations closed. You will ballot on Ballot No. 3. The chair will appoint Roderick A. Ogden of Kern County, Dr. Tenero D. Caruso of Los Angeles County, and Dr. David L. Reeves of Santa Barbara County, as tellers. Will you please come forward? This will be Ballot No. 3. The names are Dr. Herbert C. Moffitt, Jr., Dr. J. G. Josephson, Dr. James Edward Feldmayer.

Speaker Charnock: While we are passing the ballots and collecting them we will have the report from Dr. Lum, chairman of the Council, of the nominations for C.P.S. Board of Trustees.

Dr. Donald D. Lum: Mr. Speaker, reporting for the Council, I wish to place in nomination Dr. Dave Dozier to succeed Frank A. MacDonald, Dr. Arlo A.

Morrison to succeed himself. Mr. Tom Hadfield to succeed himself; Rt. Rev. Msgr. Thomas J. O'Dwyer to succeed himself. May I say Mr. Carey S. Hill would have been renominated. Unfortunately his untimely decease prevented that. His passing is a great loss to C.P.S.

May I say that there is a vacancy of a lay person that has not been filled at the present moment.

VICE-SPEAKER BAILEY: The names of Dr. Dave Dozier, Arlo A. Morrison, Mr. Thomas Hadfield, and the Rt. Rev. Msgr. Thomas J. O'Dwyer have been placed in nomination. Nominations from the floor are in order and they have to be nominations for the specific office for which these four gentlemen have been nominated. Are there any nominations from the floor for C.P.S. Trustees?

. . . It was moved and seconded the nominations be closed.

VICE-SPEAKER BAILEY: It has been moved and seconded that the nominations be closed. Those in favor signify by saying aye. Dr. Dave Dozier, Arlo A. Morrison, Mr. Thomas Hadfield, Rt. Rev. Msgr. Thomas O'Dwyer, those in favor of those four gentlemen will signify by saying aye. They are elected.

Is the Secretary ready to announce the Council's nominations of Standing Committees?

DR. SIDNEY J. SHIPMAN: Mr. Speaker, the Secretary is not here, may I do it for him? You have before you the outline which is largely the work of the president, Dr. Morrison, in reorganizing the committee structure of the C.M.A. As you see, an attempt has been made to streamline the authority and to interpret the various committees and commissions in an effective manner.

(Dr. Shipman read the list of Council appointments for the various commissions and committees.)

Those are the committees as set up. Mr. Speaker, I move to accept that report.

. . . The motion was seconded.

SPEAKER CHARNOCK: The report on the committees has been presented to you. Is there any discussion? Those who are in favor of this group of committees will signify by saying aye. Contrary minded? These committees are as reported.

DR. LUM: I omitted the Cancer Commission, the membership of which is exactly as it was last year.

SPEAKER CHARNOCK: We will accept the Cancer Commission as of last year if there is no objection.

There is no Unfinished Business.

The chair would like to suggest that as soon as we get this balloting finished that this House recess until one o'clock. If we get in to lunch just a trifle ahead of all these businessmen around town we will get fed a lot sooner. Is there anybody who disapproves of that?

We will wait then for this ballot and then the first order of business this afternoon will be the Reference Committees and they will all be ready to report. Will you please be in order?

For the position of alternate for Dwight L. Wilbur, Dr. Feldmayer is declared elected.

Dr. Bailey has an announcement.

VICE-SPEAKER BAILEY: Mr. Speaker, I rise to a point of personal privilege. We as doctors are all accustomed to learning from our more experienced colleagues. We have to depend for advice in this House of Delegates on the Speaker and Vice-Speaker, and it seems to me it would be in the best interest of the Association to ask Dr. Doyle to sit at the feet of the master, Dr. Charnock. I would deem it a privilege if the Speaker would allow him to take my place in the proceedings this afternoon so he will have an opportunity to watch Dr. Charnock at work. I would ask Dr. Cass to bring Dr. Doyle up here so that I may congratulate him and commiserate at the same time.

DR. ASKEY: Mr. Speaker and members of the House of Delegates: I think that Wilbur Bailey has had the interests of medicine at heart; he is one of our good men. He has served us well as he sits in the chair as Vice-Speaker. I think he should have the honor and privilege of representing us until the exact end of his service. I object to Jim Doyle's taking his seat at this time. I would like to amend Dr. Bailey's motion to state that Dr. Jim Doyle be allowed to sit beside the Vice-Speaker and learn from him.

SPEAKER CHARNOCK: We will have Dr. Doyle sit at Dr. Bailey's side.

I have several announcements to make. The San Francisco delegates will meet in Room 2127 during the noon recess.

The Council will meet at noon. Mr. John Hunton will arrange the room, and new members of the Council are expected to be present. We will meet in the California Room.

I have a very pleasant announcement to make. Dr. Bob Hanford, of Fresno, who has just returned from service in Europe and is a young general practitioner in Fresno and the eastern area, won the physician's automobile. I think that is a wonderful thing. It couldn't happen to a nicer man.

. . . We stand in recess until one o'clock.

Wednesday Afternoon Session

The Wednesday afternoon session of the House of Delegates of the California Medical Association was held in the Ballroom of the Sheraton-Palace Hotel, San Francisco, California, Wednesday, May 4, 1955. The meeting was called to order by Speaker Charnock, of Los Angeles, at 1:15 o'clock p.m.

SPEAKER CHARNOCK: Will the House please be in order. As the first order of business, will Wilbur Bailey please bring Dr. James Doyle and Dr. Paul Foster to the rostrum.

REPORT OF REFERENCE COMMITTEE No. 1

The first order of business is the report of Reference Committee No. 1, Dr. Dave H. Dozier, of Sacramento. Dr. Dozier.

DR. DAVE H. DOZIER (Sacramento): Mr. Speaker, members of the House of Delegates: Reference Committee No. 1 has reviewed the reports of the officers, the Council and the committees and commissions that have been referred to it.

As is customary, our report is herewith submitted in sections for your consideration. There are no mimeographed copies of this report, gentlemen.

Section 1. Reports of the President and the Council, members of the Council and Administrative Bodies. The committee feels these reports reflect a great deal of hard work and fine service to our association and that these officers are to be commended for their devotion and their competence.

Mr. Speaker, I move you the adoption of this section of the report.

. . . The motion was seconded.

Speaker Charnock: The adoption of this section of the report has been moved and seconded. Is there any discussion?

. . . The motion was put to a vote, and carried.

Dr. Dozier: Section 2, Special Aspects of the Council's Report. A varied number of activities has been presented in the Council's report which we feel deserve special comment.

(a) We wish to call attention to the Conference on Physicians and Schools. This is apparently a most worthwhile step in the right direction public health-wise, and in the sense of community service.

(b) Cooperation and liaison between the Council and State Department of Public Health appears to be a most favorable cooperative function redounding to the mutual benefit of the public and the California Medical Association.

(c) Activities with and in behalf of the Student American Medical Association culminated in recent various successful conferences which appear to merit a most worthwhile commendation in support of the Council's efforts in assisting these men and women.

(d) The committee is aware of the studies being conducted by Rollen Waterson Associates. The committee feels this is a very valuable and important project that promises to provide more aid and material to the members of the California Medical Association. The committee further feels that as this work progresses suitable reports should be made available to the county medical associations and members of the California Medical Association.

Mr. Speaker, I move you the adoption of this section of the report.

. . . The motion was seconded.

Speaker Charnock: It has been moved and seconded this section of the report be adopted. Is there any discussion?

. . . The motion was put to a vote, and carried.

Dr. Dozier: Section 3, Reports of Committees and Commissions. Your reference committee has studied the reports of the various committees and is greatly impressed with the breadth and scope of the association's activities and the fine services rendered by committee members. These reports, however, do point up in several instances the need of a realigning the committees in defense of their interests. Again the committee wishes to commend the report of the Committee on Postgraduate Education; its fine efforts have not only been sustained but have become even more successful.

The Report of the Medical Services Commission indicates that its efforts continue to grow and be of increasing service to the public and profession along the programs outlined by the medical section; it shows it is a group concerned with the public welfare and fee schedules and various programs of medical care of California citizens.

The Committee on Rural Health we feel is to be commended for its very excellent work.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded.

Speaker Charnock: It has been moved and seconded to accept this section of the report. Is there any discussion?

. . . The motion was put to a vote, and carried.

Dr. Dozier: Section 4, Committee on Public Relations. Your reference committee has saved for a special section its report on Public Relations. Over 90 per cent of the time spent by your committee was the consideration of Dr. Murray's report and the various phases of public relations. The breadth of the discussion and intensity and keen assertion of the views expressed by many of the discussants was eloquently presented. Specifically your committee made several recommendations. A careful study of these recommendations, as presented, seem to your reference committee to well encompass both the ideas of the Public Relations Committee and the majority of those that engaged in the discussion of the entire subject.

To this committee it was apparent our one great concern was the continuance of the active, aggressive, effective Public Relations Committee program. We feel that this point cannot be too strongly emphasized.

Your reference committee is aware that the Council's recommendations for revision of the committee has been concerned with No. 4. We would be derelict in our duty if we do not recommend that the Public Relations Committee be given full status and advised of the many subjects coming under the head of public relations. We feel the introduction of new topics for Audio-Digest, adequate expansion and knowledge of important factors and findings of medical care, the practice of medicine and medical economics, student A.M.A. activities, distribution of the type of pertinent matters of this type should come into this committee; we feel this committee should cooperate with the Council.

No. 1. We feel continued emphasis on development of an effective public health program is of the greatest importance in the months ahead.

I move you the adoption of this section of the report.

. . . The motion was seconded.

SPEAKER CHARNOCK: This section of the report has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. DOZIER: In conclusion, Mr. Speaker, I wish to thank especially the other members of the committee for their assistance, Dr. Thomas D. Dozier, and particularly Roger A. Vargas, San Bernardino, in preparing this report, truly a report of the entire committee. I would like to thank Mrs. Barbara Corley for her patience in reading our notes and typing this report.

I move the adoption of the report as a whole.

. . . The motion was seconded.

SPEAKER CHARNOCK: The adoption of the report as a whole has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

SPEAKER CHARNOCK: The chair wishes at this time to reiterate the thanks to the three members of the Reference Committee.

The next order of business is the Report of Reference Committee No. 2, Thomas P. Hill, Lakeport, chairman. Dr. Hill.

DR. THOMAS P. HILL (Lakeport): Mr. Speaker, members of the House of Delegates: Your Reference Committee No. 2, composed of Thomas P. Hill, Lakeport, Henry Gibbons III, San Francisco, and Robert J. Moes, of Los Angeles, has been presented with and approved the reports of the secretary-treasurer and executive secretary. The already heavy schedule of Dr. Albert C. Daniels in attending meetings of the Council, the Executive Committee, Committee on Postgraduate Activities and Cancer Commission has now one added organization, presiding over the Conference of Physicians and Schools, and in so doing all of these have been handled very satisfactorily.

Mr. John Hunton, executive secretary, has continued to perform his duties in the very efficient manner he has done in the past, which is essential to the success of this organization.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

SPEAKER CHARNOCK: This section of the report has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. HILL: The budget proposed by the Council was carefully studied and discussed and the committee wishes to express its thanks to the many delegates who appeared before it and participated in the discussion. We noted that there was a deficit of $45,118 which was partially offset by a profit of $14,550 from CALIFORNIA MEDICINE, thus giving a net deficit of $30,568. This would make the second year in which we had spent more money than we had received.

Last year was exceptional in that we set aside a large amount for Rollen Waterson Associates to do some very necessary work and we donated $100,000 of surplus to the American Medical Education Foundation, with the resulting deficit of $115,205. However, as Dr. William Bender pointed out, as all of us decry the deficit spending and an annual unbalanced budget in political economy, your committee believes that should not be a continuing condition in our own organization. Therefore, in an effort to limit our estimated expenditures, or estimated income without damage to vital functions of the organization, your committee recommends some changes in the figures proposed by the Council.

Of the eight changes made, four were decreased below the amount spent last year, two were decreased below the amount budgeted last year, one was increased, and there was an increase in amount budgeted for a new committee, that on Malpractice Insurance.

You have your budgets in front of you. Take up Item 17-d, A.M.A. Delegates—$22,000 is requested, $20,000 was recommended. Last year this item was budgeted for $21,000 and $24,500 was the estimated expenditure. We feel perhaps a little more economy can be exercised by our representatives.

Item 21, Cancer Commission—$26,000 was the estimated expenditure last year and no one appeared before us to explain the need for increasing the fund to $30,638, nor how the $30,638 was to be spent. When you think of that, $29,000 should be sufficient, the same as now.

No. 3, Postgraduate Programs—$33,900 was requested, an increase of $5,900, apparently for an assistant at $6,000 a year, the same salary as Dr. Broaddus receives. Dr. Broaddus has put in a great deal of time and effort on this program and we can't feel the justification of having the assistant having the same salary to understudy; however, because of the great value of this program to outlying counties we feel the program should be encouraged and feel an increase of $2,000 should be allowed to be used as the association feels best, whether an increase to Dr. Broaddus' salary or otherwise.

No. 24, Medical Services Commission—$500 increase, from $30,000 to $30,500 was requested. Under the reorganization suggested by our past president, Dr. Morrison, this committee will be reduced from twelve to nine members, therefore there should be a reduction in expense. We think that $29,000 should be sufficient for expense.

Item 25, Other Committeees—$20,000 requested, in spite of the fact that only $17,000 was spent last year. We have no reason to believe that $3,000 more should be needed this year, therefore we recommend that the amount be kept at $17,000.

Item 26, Department of Public Relations—$60,000 was spent last year and $70,000 was requested for this year, representing an increase of $10,000. We feel that Item 17-d, Conference of Physicians and Schools, in the amount of $6,200, comes under the head of Public Relations, consequently we recommend that the amount under the heading Department of Public Relations should be left at the expenditure of last year, which is $60,000, that if the amount of $6,200 was considered under Public Relations then the deduction amounts to only $3,800 instead of $10,000.

Item 27, Public Policy and Legislation. In considering that perhaps more money may be needed we realize that the State Legislature is in session this year, and in view of the large number of major crises in sight we believe $70,000 should be enough.

Item 29, Contributions to Medical Libraries. This committee recommends that $6,250 is rather a small contribution to our two big libraries. Because of deficits we do not feel justified in raising it; however, we recommended an increase in this amount shall be seriously considered by the Council in making out the budget for 1957.

Item 31, Contributions to Medical Education. This amount of $130,000 is dependent on increases in dues by $10 per year. The committee feels strongly that this should be done and apparently those that attended the hearing felt the same way. We think that there is no question but the Medical Education program should support our medical education and it is our opinion that the California Medical Association should be in the vanguard of this support move.

Item 32, Committee on Malpractice Insurance. This is a new committee and will require compilation of statistics and services of an insurance actuary. We realize the importance of this work and we believe it should go forward. $19,000 is budgeted but we feel that $17,000 would be sufficient. There is another side on that; we think that it should be first brought up before the Council.

Now $14,000 might be sufficient, but we were afraid it wouldn't be, so added another $5,000 to it, and without any particular reason we could see, so we considered $17,000 would be sufficient.

By that recommendation we decreased the budget —it would show a deficit of $13,580 instead of $45,117; however, if the profit of $14,550 from California Medicine were considered we'd show a surplus of $970.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

Speaker Charnock: This portion of the report, including some ten changes in the budget, as presented by the Council, has been moved and seconded. Is there any discussion? Dr. Bender, of San Francisco.

Dr. William L. Bender (San Francisco): Mr. Speaker, members of the House: Misery loves company and I feel very much better than I did last year when I presented two resolutions designed to cut down the expenses of the California Medical Association without impairing any of the important functions of C.M.A. To preach economy always is to become unpopular. Last year I stood up to the big brass hats alone, and now I am very pleased to note that we have a responsible reference committee dealing on the same subject.

We have increased the dues by $130,000 annually by assessing each member $10 more per year. We have nearly balanced the budget, at least, by the suggestions of the Reference Committee. The income from California Medicine of course is a bookkeeping item. Actually the C.M.A. subsidizes California Medicine by transferring to California Medicine $3 per member, roughly $39,000 a year. Of course for that you get your journal, which is a good investment, but at the same time it is difficult to call that income for California Medicine and therefore a profit. Actually, even including that we still have a deficit of about $15,000 even after the changes that the Reference Committee has suggested.

In my book before you increase anyone's dues you prune your expenditures to the bone consistent with continued effective operation of your organization. Last year I presented factual evidence to show that we were indulging in extravagances which could be eliminated without sacrificing the services which those additional expenditures afford. That still is true and it is my earnest hope that this trend to a sound management of the California Medical Association is continued.

Speaker Charnock: Thank you, Dr. Bender. Dr. Drummond.

Dr. Drummond: I'd like to point out one very encouraging fact. Just a few years ago the California Medical Association was spending only between 5 and 8 per cent of its income for scientific purposes. The rest of the expenditures went for public health, for political activities, and for things that were definitely not scientific. I note now, making a quick and rough calculation, that about one-third of our expenditures are for scientific purposes, which I think is far more worthy of the things for which the grand organization was founded.

Speaker Charnock: Thank you, Dr. Drummond.

Are we now ready to vote on this budget? Is there any discussion?

. . . The motion was put to a vote, and carried.

Dr. Hill: Your committee has given due consideration to Resolution 17 submitted by Dr. Dave Dozier, which you have before you. There was a great deal of discussion concerning the allocation of the $130,000 for Medical Education. Dr. Dozier believes that the whole amount should be allocated to the three nonland-grant schools in California. Dr. Eugene Hoffman feels it should be distributed in the proportion of 75 per cent to the nonland-grant schools and 25 per cent to the American Educational Fund, to do with as directors see fit. Others thought it all should be given to nonland-grant schools, that some state-supported land and nonland-grant schools should be included. Your committee felt the California Medical Association should indicate its support to the present system of medical education without the interference of the federal government. We also feel that support should not be limited to California only nor to land grant schools only, but to the whole system of medical education, regardless of the status of the institution, and that the fund be distributed according to need by the A.M.E.F. We therefore recommended that this resolution *do not pass.*

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

Speaker Charnock: That section of the report has been moved and seconded. Any further discussion? Dr. Dozier.

Dr. Dozier: I would like to speak to this subject under two titles. One is urgent need and the other is overall policy. In proposing this resolution my own personal feeling was that this not be made a matter of permanent policy and I stand ready either to offer or accept any amendment that would secure that as an integral part of the resolution. That is a matter to be decided this year this way, perhaps a year from now another way.

One of the reasons that I have this feeling on the matter is that as the money was distributed last year, the medical schools throughout the country got variously somewhere between fifteen hundred and perhaps forty-five hundred each, depending upon size of enrollment, whether a two-year school or four-year school, and so forth and so on. In many instances—and I know of one instance in particular—money given by the C.M.A. was absolutely wholly unappreciated by the school. By that I mean they were given a round sum from the American Medical Education Foundation and nowhere in that grant was it indicated that the doctors of California had given that particular portion of the grant that they got, whatever it might be.

This thing is new. Very few of the 48 state societies have adopted a policy like this. They are all feeling their way and if we start in earmarking it one year one way and Illinois in retaliation makes it another way, we are going to get a bifurcated situation on our hands in no time. I repeat, as a matter of overall policy I would not want to have the House feel that that was what this resolution would suggest or portend.

Let's take it rather as a matter of the immediate situation and immediate practicality of the situation, which brings me to the second heading, and that is *need.* If we again consider some fifteen hundred or two thousand dollars, or something like that that each medical school gets, that doesn't keep a medical student in school for a year; sure some nice kid in each school that should be kept in school, I know that, but from the standpoint of budgetary problems of the school such a small gift doesn't go very far and doesn't represent very much. Proportionately, at least, I think it is not greatly appreciated; therefore, let's look at it from the standpoint of need.

I have here a telegram from a president of the Alumni Association of the University of Southern California, Dr. Howard House: "Dr. Donald Charnock, Speaker of the House of Delegates: Previous commitments make it impossible for me to appear before the House of Delegates on the resolution . . . money contributed for Medical Education Fund. Everyone interested in the private schools in California is aware of this, that if our system of free enterprise in the practice of medicine is to survive and our California private schools continue to exist and be made strong, that money made by doctors practicing in California and given to the Medical Education Fund through their own California Medical Association should remain in our state to help our private medical schools in their crucial fight for survival. I sincerely hope the House of Delegates will act . . . on this resolution. Signed, Howard P. House."

I reiterate the words, "urgent need." I think our colleagues from the southern part of the state are aware of the very serious, critical situation in the University of Southern California Medical School. I am sure those of us at Stanford feel that any monies we can get or any appreciable sums are most urgently needed; therefore, it would seem to me that as a temporary measure this proposition has merit.

Your reference committee chairman did not add that when we discussed this before the committee the other day I said I personally would be willing to accept an amendment to this resolution providing that, say, 75 per cent of this $130,000 odd dollars go to our local nonland-grant medical schools and that the other 25 per cent go either unearmarked or for nonland-grant schools throughout the country.

We are feeling our way; this is relatively new. There are indications that this is a problem that is going to rise to the level of the American Medical Association and the whole thing may well be taken out of our hands within the next two or three years. Therefore, on the basis of this year, 1955-56, as a matter of urgent need, as a matter of doing it now, with no thought that it be a permanent policy, because we don't have that kind of knowledge or wisdom, I would like to urge that the committee's recommendation be in fact denied. If any of you care to amend the resolution that has been presented to earmark funds, as I have suggested, or an additional amendment to limit the time, I would most gratefully accept those because I am thinking now of the urgent need of our own schools. (Applause.)

A Member: Mr. Speaker, I rise to a point of information. I am sure other members here would like to know the answer to this question if anyone has the answer. I have tried to find out from the Medical Education Foundation without success. Funds are contributed for medical education in three ways, either unearmarked to the Medical Education Foundation or to the Medical Education Foundation earmarked for a particular school, or by the individual direct to his school. What I'd like to know is whether the amount of money contributed directly to the school or the amount of money which goes to a school because it is earmarked for that school has any influence upon the allocation of funds from the General Fund's unearmarked money that is given to the Medical Education Foundation.

Speaker Charnock: Ask Dr. Green the answer to that.

Dr. Green: Mr. Speaker, members of the House: I hate to take this microphone year after year in the same problem which is not only a problem in the state of California and before our House, but a problem in all the states, and in all the houses, and with all the graduates, no matter where they come from. I will answer the member's question in this way: all earmarked funds that go to the American Education Foundation are sent to that school without any deductions for administrative cost or anything else. When I say University of Illinois shall get fifty or a hundred dollars they get fifty or a hundred dollars. Does that answer your first question?

A Member: No, the point is that if they get fifty dollars of earmarked funds, do they get fifty dollars less of unearmarked funds?

Dr. Green: No, not at all, they participate on the same basis as others in every respect, except sometimes as to need that has been decided by the Executive Committee in handling this fund; at other times it depends upon the enrollment. For instance, if the University of Ohio has more matriculates than the University of Nebraska, they get more money accordingly; we have it on the basis of need here, as you can see. I have a whole sheaf of letters from all over the country, from medical schools. Gentlemen, they all need money, there isn't a single one that I know of that does not; possibly Harvard.

There was a time the University of Oklahoma, too, didn't need the funds; whether they need them this year I don't know. It varies from year to year; even the state tax operated schools tell me. At University of Illinois, the Dean tells me, "Doctor, of course we have the state's money to run our medical education program, but," he said, "it drops at various times; we run into an emergency and need a new speaker, we want to acquire an especially good man from some other institution who looks good and can't be employed, or we need a few dollars for laboratory equipment and have to wait until the legislature meets again before we get it." I think we could argue the point all afternoon; in the Medical Foundation group they argue it all afternoon and don't get anywhere. My reply is that you give $130,000 to Medical Education.

Speaker Charnock: Dr. Cass.

Dr. Cass: I would like to ask Dr. Green or Dr. Murray to tell the House for my information whether or not there is any difference between the amount of money allocated to those state institutions such as University of California, backed by the entire tax resources of the state, as compared to a private institution that has no such backing. Is there a differentiation in the amount of money given to the privately supported or tax supported schools as it has been in the past? Dr. Murray, you are chairman of the Board, you answer that.

Dr. Murray: Mr. Speaker, Mr. President, members of the House: A direct answer to Dr. Cass' question is no, there is no differentiation between tax supported and nontax-supported schools in the distribution of the fund. The only difference is made in the distribution as Dr. Green pointed out. If this money was allocated directly to the schools in California that means there will be that much less in the General Fund for distribution. Does that answer the question?

Dr. Cass: Thank you, Dr. Murray.

Dr. Hoffman: Yesterday we were asked to find $130,000 odd dollars; our committee has suggested we spend the money on the basis of need, strictly on a policy basis of need. Need has to be decided at the A.M.A. level. The Foundation or the different deans—if we allocate this amount of money on the basis of need we are complicating our donation, we are putting strings on it, we are saying to those men, go find out how it can be allocated according to the greatest need. That means conferences, it means letters, it means hours and hours of committee work and I don't think it is fair to allocate this money on that basis, I would like to see the committee's recommendation voted down.

Now as to the second part, as to how it is to be allocated, I have no pride of authorship in 75/25 per cent. It was suggested to me and was merely a part of the discussion. Neither do I have any opinion, any staunch opinion as far as argument is concerned, as to the resolution as presented to the committee, but I would ask you to vote down the recommendation of the committee. Thank you, gentlemen.

Speaker Charnock: Any further discussion?

Dr. J. Harold Batzle (Riverside County): I would like to propose an amendment to Resolution No. 17. Before reading the amendment I would like to say why. First of all, I am not a graduate of the schools of California; I am a graduate of a school from the Middle West. Secondly, I am from a state supported school; I have no axe to grind.

I noted in our budget today that 10 per cent of your budget is allocated for public health, and yet we are spending 20-plus per cent for the Educational Fund, and it seems to me that that 20 per cent is losing its identity so far as we are concerned and that we might use it in an effort to regain a little of that in the way of public relations.

Now there is no precedent in establishing this 75/25 per cent suggested because that is the usual way in which fund raising drives are run. Any national organization such as the March of Dimes, for example, starts locally to try to raise funds and they assure the givers that up to 50 per cent of the money that is raised will be used locally. We all know as a matter of fact that in doing it, that is how we provide an incentive for raising funds. After all, charity does begin at home.

In the second place, the money has lost its identity, that hundred thirty thousand dollars that is sent to a fund to be distributed and which is distributed. I am surprised the question wasn't asked, when the $2,000 is given to the school, is it told that that money has been given by the California Medical Association? The answer is no; it is being given by the American Medical Education Foundation. Selfishly, I'd like to have it known I gave the money.

My resolution is in two parts, and reads as follows, if you can follow the reasoning behind this: First, that any funds contributed by California Medical Association be earmarked as restricted to 80 per cent for nonland-grant schools located in California, and 20 per cent to the A.M.A. General Fund; and second, that a study be initiated to consider the advisability that the funds so appropriated for nonland-grant schools located in California be used to establish chairs or professorships in the respective schools in California and that such chairs and professorships be titled as representing the California Medical Association.

Speaker Charnock: You put that as an amendment, Dr. Batzle, to the Reference Committee No. 2's report?

Dr. Batzle: I am very sorry. I'd like to apologize if I am out of order. I'd like to propose it as an amendment, yes.

Dr. Askey: Mr. Speaker, members of the House of Delegates: There are two or three aspects of this problem that we must look at. In the first place we must look at the problem as citizens of the state of California. We are all citizens of this state and we are proud of it. We therefore have a duty to support the institutions that are controlled by our state government. That is being done by each one of us paying our taxes, and your State Legislature disposes of those taxes in relation to its appropriate place.

We have a Board of Regents of the University of California that decides how much goes to our medical schools, therefore as citizens our duty is to see that the tax-supported institutions are taken care of thereby. There we would argue as to how the state taxes are sent to medical schools, as citizens of this state that should go to the Legislative Committee.

As doctors of medicine, however, we have another duty, and that is this, to see that the education of our medical students is adequate, no matter where it is, because, gentlemen, you cannot predicate the assumption that all the men in this room or in this state practicing came from a California nontax-supported institution. I did not; I came from an eastern private medical school, yet I am practicing here. I was interested yesterday to hear that in the University of Illinois—I think it was Illinois—that the Dean said that he had 75 California students at this Illinois institution which was an Illinois state tax supported institution, and they had only 57 from the state of Illinois.

Now it seems to me that when we commence to say that we will allocate the money only to the schools of California we are not doing the correct thing. Now the American Medical Association established the American Medical Education Foundation to distribute this money for the need of medical education. I am going to mention a state, not because it is a true state in fact, but as an example, say the University of Arkansas. I don't know whether it is rich or poor but suppose some of their graduates come to California and they need money and they can't give them an adequate education.

Yes, we are hurting our own practice of medicine by limiting an idea that we may have as to what is most needed. I believe and I hope the chairman of the committee will correct me, that his recommendation is that the fund be allocated as to need, with your recommendation, to the American Medical Education Fund, that they be given according to need and I think that if we do that and send it to the American Medical Education Foundation with our indication that we want it to go to the place where it is needed that is what we should do.

Now a third aspect of this, and thinking of the fact that you might want to give it to your own institutions, the American Medical Education Foundation has stated, as Dr. Pete Green told you, that you wanted it to go to U.S.C., Stanford or any of these other institutions we are proud of, you have the right to say you want it to go to Stanford, therefore the whole three aspects are covered. I think if we carry it out that way we are doing the thing for medical education, you are doing it for the boys who are going to practice here, going to do it for the institutions of those of us who came here, and going to carry out your duties as citizens of the State of California. Thank you.

Speaker Charnock: Thank you, Dr. Askey.

Dr. Wilson: Mr. Speaker, members of the House: Two points. The first is, we are being taxed by the state to support the two state medical institutions of this state as are citizens of other states taxed for that purpose. For this particular fund we are being taxed by our association to this extent. On the other hand, we look upon it as a gift, and it seems to me we therefore have a right to say where this gift is to be spent. It seems to me it is a mistake for us who as citizens support state medical schools, for us to tax ourselves to support those same institutions. I feel very strongly we should use these funds for the support of those medical schools and institutions which are not largely tax supported; whether in California or across the country makes quite a little difference, too.

The second point which I think we should seriously consider in this matter is that the competition between the private medical schools and the state medical schools is what makes each one great. We are witnesses to that here; we witness that here in San Francisco in the relationship between Stanford and the University of California. Those of you who live in the southern part of the state are seeing the same thing there, now that the U.C.L.A. Medical School is beginning to develop. The U.C.L.A. is beginning to get born because of the competition. It is going to be forced to become a great school, which it will over the period of time, so we are getting double use out of our money if we will give it to those institutions that can't go to the state for financial support.

Dr. Green: Mr. Speaker, just so we might know exactly what we are doing in the matter when we decide about the amount of money, I just want to state how it stood last year. We gave a hundred thousand dollars from the Council's sinking fund, safety fund you might say, and we raised by voluntary subscription in California less than $85,000 from our total membership. Here is the grant for California's College of Medical Evangelists, Los Angeles, $33,643.90; University of Southern California School of Medicine, Los Angeles, $24,598.52; Stanford University School of Medicine, San Francisco, $26,860.92; University of California School of Medicine, San Francisco, $24,939.34. I think if you add those figures up you will find out we are just about even.

Speaker Charnock: Dr. Graham, Los Angeles County.

Dr. Graham (Los Angeles County): I speak as vice-president of a medical school. We have close to six hundred men practicing in California. I know the gentleman who spoke a few minutes ago proposed an amendment to the resolution. I am against the report of the committee, Reference Committee 2, because I have been taxed and taxed plenty to support the state institutions. One of the medical schools in Los Angeles has $65,000 in the bank while U.C.L.A. takes quite a few million dollars from our taxes.

I believe frankly that a certain amount of that money, at least the greatest portion of that money, should go to our institutions here in California and I mean the nontax-supported medical schools. We are complaining, everybody is yelling about the fact, and the liberals say we do not allow our young boys to go to medical school. I am in favor of that 80 and 20 per cent, I'd like to second that amendment, since nobody has seconded it.

I don't believe we should give on the matter of need because I remember perfectly well not very many years ago when President Truman came to Congress and said he wanted the point-four program. The Senate had several bills, and it was going to be given on a matter of need, and at the same time we were buying potatoes from Canada while burning our potatoes in this country. If we are going to be consistent in our policy of giving something to our medical schools, let's give it to those that are not under tax and government supervision. I'd like to second the amendment that the gentleman proposed.

Speaker Charnock: Dr. Batzle, from Riverside, California, was the gentleman. Dr. Ogden.

Dr. Roderick A. Ogden (Kern County): As has been ably stated before, I feel that we support our state schools. The plight of the University of Illinois is actually a little bit cold. It would seem to me that an institution backed by the resources of the state of Illinois, if it is in a position where it can't hire a professor, doesn't have a few thousand dollars for laboratory material, that is a matter of public relations between its chancellor, president, board of trustees and the State Legislature. The money is available if they don't have it at this time.

None of us at any time has seen a state-supported institution with adequate facilities, or anything else, or that had enough money. If you ask anybody in any state-supported things if they have got money, they haven't; they want more. The private institutions are in a bad way. If you want to get down to cases it might be suggested that if it wasn't for the subsidized state of Illinois, for the ball team, your Rose Bowl might do better. I am not in favor of any revision at all. I would suggest that in California, at least, consideration be given that it all be adopted as it is with the exception that it be earmarked for nonland-grant schools of medicine. Thank you.

Dr. Green: May I have the floor for a minute for factual information? I brought this to the hearing and it seemed then it was very pertinent to the whole matter. This comes from Northwestern University, and was written to Mr. Hunton.

"I have noticed in the listing of the gifts to the American Medical Education Foundation designated for the Northwestern Medical School there appears a contribution of $2,430.22, from the California Medical Association. Northwestern University Medical School is tremendously grateful for this contribution; it signifies confidence in its institution.

"As you know, Northwestern is a privately endowed institution, and it might interest you all to know that an analysis of the applicants to our schools in the academic year of 1952 and '53 it was found we received applications from 44 of the 48 states; 275 applications from the state of Illinois, and 203 from California."

Dr. Paul Bock (Pasadena): I speak to you as an officer of the Stanford Medical Alumni Association. I wish to point out Dr. Dave Dozier who introduced that resolution was a recent governor of the Stanford Medical Alumni Association and recent past president. He is tremendously well informed and acutely aware of the rather drastic financial problem faced at the present time by not only Stanford, but U.S.C. and College of American Evangelist Medical Schools. It seems to me 13,000 members of the California Medical Association would react a great deal more favorably to increases in their dues of $10 a year if they were assured it was to be distributed to medical schools in their home state who were really in need and whose very existence is being jeopardized by financial restrictions. Thank you.

Speaker Charnock: Dr. Batzle, will you state your first proposition, or correct me if I am in error, that your amendment is to read that 80 per cent of the sum contributed by the California Medical Association of the total American Medical Education Fund shall go to nonland-grant schools in California, or nonland-grant schools, period.

Dr. Batzle: In California.

Speaker Charnock: That is what I wanted; the parts about professorships, I think we will kind of work out, I hope.

Dr. Batzle: That is a suggestion for study.

Speaker Charnock: Is there any further discussion, then? This amendment has been made and seconded, and we will vote first upon the amendment; at this time may we have any further discussion upon the amendment—80 per cent of the funds contributed by the California Medical Association shall be earmarked for nonland-grant schools in California, 20 per cent shall go to the General Fund. Is that all clear to you?

Dr. Batzle: I would like to know whether that amendment was made directly to the report or whether that amendment was proposed as an amendment to Dr. Dozier's original motion.

Speaker Charnock: Directly to the report. If the report was accepted all the money would go to the A.M.E.F. without any further consideration; that is my feeling about it. Would Dr. Hill please correct me on that?

Dr. Hill: May I talk a little further on what the opinion of the committee was on this? All three were from private schools, and we are all three taxpayers, and we support the two state schools, but it was the principle of the thing. All of the medical schools are in a bad way, the private schools much worse than the state schools.

I understand the University of Mississippi, for instance, is just about on the rocks. Mississippi is not a really wealthy state and has great difficulty in raising money. We talked it over very thoroughly whether it should be allocated to nonland-grant schools at all. It was finally decided that in the medical profession there has been great criticism of us because we have not supported our present system of medical aid by our present system of medical education.

We do not mean private schools or tax supported schools, we mean the whole system, and that is the purpose of this recommendation. We consider the California Medical Association should indicate its support to our present system of medical education regardless of school but to the whole system, that we feel this indication of support should not be limited to California, shouldn't be limited to the private schools in California, shouldn't be limited to the state schools of California, shouldn't be limited to the schools in any one state, but I want the expression of an indication that California medicine, the medical profession in California, is behind our present system of medical education regardless of what school they come from.

Now that is a clarification of the committee; they say we are all for the private schools.

Speaker Charnock: First is on the amendment. Now let's get this quite clear. Reference Committee No. 2 has recommended that Resolution No. 17, granting this money to nonland-grant schools in California, be defeated. If you vote in favor of that, the money, the $130,000, will go to the A.M.E.F. uninstructed. The amendment earmarks that such money shall go 80 per cent to nonland-grant schools in California and 20 per cent to the General Fund—that is the amendment. Are you ready for the question?

Member from the Floor: How about Part 2?

Speaker Charnock: Part 2 is setting up a study about institutions, professorships, and has not anything to do with the allocation of money which I think you are all interested in at the moment.

Those in favor of the resolution will signify by saying aye.

Member from the Floor: The amendment?

Speaker Charnock: I am in error, I meant those in favor of the amendment by Dr. Batzle will signify by saying aye. The chair is in doubt. Will those who are in favor of the resolution please stand? All right, those who are opposed to the amendment will please stand. The amendment is passed.

We will now vote on the recommendation of the Reference Committee No. 2, as amended. Those who are in favor of the report of Reference Committee No. 2, as amended, 80 per cent and 20 per cent, will signify by saying aye. It is passed.

Dr. Hill, you may make your recommendation.

Member from the Floor: I rise to a point of order. According to this vote we have just had we defeated this resolution that we have just amended, is that right?

Speaker Charnock: No, sir, what you have done is defeat the resolution of Dr. Dozier which would put all the money into the nonland-grant schools of California. You have decided to put the money, 80 per cent to nonland-grant schools in California and 20 per cent to the General American Medical Education Fund. Dr. Hill.

Dr. Hill: Mr. Speaker, I move the adoption of this report as amended as a whole.

. . . The motion was seconded.

Speaker Charnock: Thank you, Dr. Hill. This report as amended will now be voted upon. Any further discussion? Those in favor of accepting this report as amended will signify by saying aye. Contrary minded?

. . . The motion was carried.

Speaker Charnock: We want to thank Dr. Hill, Dr. Henry Gibbons, Dr. Robert J. Moes.

Vice-Speaker Bailey: We will now have the report of Reference Committee No. 3, Dr. Helen Weyrauch.

Dr. Helen B. Weyrauch: Mr. Speaker and members of the House of Delegates: Your Reference

Committee No. 3, composed of Dr. Arthur A. Marlow, of San Diego County; Dr. Robb Smith, of Fresno County, and Dr. Helen Weyrauch, of San Francisco, chairman, has considered all of the resolutions referred to it and would like to submit the following report.

Resolution No. 1—Introduced by Dr. Donald D. Lum for the Council. The Council wishes to restore the older name, Immune Globulin (Human) to a product which has been in use for many years, in place of the new specific name which is misleading. Your committee recommends that this resolution *do pass.*

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded this portion of the report be adopted. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 2, introduced by E. C. Halley, of Fresno County.

This resolution deals with charges for hospital services and while we are in accord with the intent of the resolution that charges should reflect accurately their source of origin, we feel the purpose will be more clearly defined by this substitute resolution:

"*Resolved,* That the California Medical Association place on record that it believes hospital charges should be maintained at as low a level as is compatible with good medical care; and be it further

"*Resolved,* That a realistic cost accounting system be developed whereby cost of room and board, and service rendered by each department of a hospital be reflected in the patient's bills in their true proportion; and be it further

"*Resolved,* That a copy of this resolution be officially transmitted to the California Hospital Association urging and encouraging that Association to help correct the existing situation as to charges for hospital service."

Your committee recommends that this substitute resolution *do pass.*

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded this substitute resolution do pass. Any discussion?

DR. HALLEY: Mr. Speaker, members of the House, I introduced that resolution from Fresno County and before it was introduced it was surveyed critically by members of the Sixth Councilor District and they accepted it in principle. In that Reference Committee No. 3 has retained the full meaning and intent of this resolution in the resolves that were read here today to you, our county is very happy to accept the substitute resolution and we would urge that you abide by the recommendation of Reference Committee No. 3 in this instance.

VICE-SPEAKER BAILEY: Thank you, Doctor. Any discussion? We then vote on the adopting of the substitute resolution.

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 3, introduced by Malcolm Todd, Los Angeles County.

Your committee thinks that any group should have the opportunity to rediscuss a ruling of the Judicial Council of the A.M.A. when it concerns a change of status. However, we have clarified the wording of the fifth "whereas" as follows:

"WHEREAS, The dispensing of glasses is only incidental to the rendering of service," and on the copy submitted to this committee the eighth "Whereas" was deleted by the author but through error it was reproduced on the copy you have in your hands. This deletion should be made on your copies—No. 8 Whereas.

VICE-SPEAKER BAILEY: What does it start with?

DR. WEYRAUCH: Whereas, any interpretation of ethics which prevents an ophthalmologist—

VICE-SPEAKER BAILEY: That is enough; just wanted to be sure everybody knew what it was.

DR. WEYRAUCH: We have deleted several phrases in the resolved so it now reads:

"*Resolved,* That the House of Delegates of the California Medical Association instruct the California delegates to the American Medical Association to reopen the discussion of the present interpretation regarding the ethics of rendering a complete dispensing service by physicians."

Mr. Speaker, your committee recommends that this amended resolution *do pass.*

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded to adopt this portion of the report. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 4, introduced by Dr. T. D. Englehorn of Monterey County.

Your committee feels that this resolution dealing with laboratory advertising merits consideration. We have changed the wording slightly in the first and last "Whereas." The first Whereas shall read: "Whereas, professional advertising in medical society bulletins and other publications is not considered an ethical practice," and the fourth Whereas shall read:

"WHEREAS, The acceptance and publication of such advertising by lay laboratories creates an unfair advantage in favor of a nonmedical person not generally available to the doctor of medicine; now, therefore, be it

"*Resolved,* (1) That this House of Delegates recommend to each county medical society that any notice or announcement by a lay laboratory that is printed in a county medical society publication be subject to the same restrictions that apply to similar announcements by doctors of medicine."

Section (3) would then be number (2), and the new section (3) would read as follows:

"(3) That copies of this resolution be sent to all component medical societies of the C.M.A."

Your committee recommends that this amended resolution *do pass*.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: The motion has been made and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 5, introduced by Lewis T. Bullock of Los Angeles County.

This resolution regards the distribution of income from charity events. While your committee is in accord with the principles expressed in this resolution, having ascertained that Assembly Bill 2925 covering this situation has passed the Assembly and is expected to receive favorable action in the Senate, we feel that this will accomplish the purpose of the above resolution. For this reason your committee recommends *do not pass*.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? This is a negative resolution, this "do not pass." An affirmative vote will kill the resolution.

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: No. 9, introduced by Herbert C. Moffitt, Jr., of San Francisco County.

Your committee feels that this resolution has many facets and it is wise to have it under Council consideration. Your committee recommends *do pass*.

Mr. Speaker, I move the adoption of this portion of this report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 10, introduced by Herbert C. Moffitt, Jr., of San Francisco County.

This resolution deals with an important problem in the evaluation of products and your committee recommends a *do pass*.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 11, introduced by Herbert C. Moffitt, Jr., of San Francisco County.

Your committee feels that this is an increasingly important subject and deserves an intensive study and perhaps even a dynamic new approach before the situation becomes acute. Your committee therefore recommends *do pass*.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 12, introduced by Dr. R. W. Helms, of Los Angeles County.

The committee heartily endorses the concept of free choice of physician. The committee also realizes that the Workmen's Compensation Law is very intricate and for this reason feels that the proper place for study of this resolution lies in a committee dealing with this problem and should be studied therein. We would like to point out that workmen's compensation laws are not new and many states have similar laws. Their methods of meeting this problem should be explored and particular attention should be called to the New York system for providing service for medical injuries. The committee recommends that this resolution be referred to the Committee on Industrial Practice unless the new table of organization is accepted, in which case it should be referred to the Commission on Public Policy.

Mr. Speaker, I move the adoption of this section of this report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. This House will note that is a motion to refer to one of two committees, whichever is most logical, not a motion to pass. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 13, introduced by James B. Graeser of Alameda-Contra Costa County.

Your committee approves this resolution and recommends *do pass*.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 14, introduced by Frederic P. Shidler of San Mateo County.

The committee appreciates the motives which prompted this resolution. However, after due consideration, your committee felt that a resolution to clarify the status of such plans would be more appropriate at this time and offers this substitute resolution.

"WHEREAS, The California Medical Association has encouraged local component societies to experiment and to develop prepaid health plans; and

"WHEREAS, Without proper advice and supervision such plans may incorporate features which have proven to be unworkable or disadvantageous to either the subscriber or to the physician; now, therefore, be it

"*Resolved,* That the California Medical Association continue to encourage the development of prepaid plans by component societies but that in the development of such plans it is recommended that the advice and counsel of appropriate agencies of the C.M.A., such as the Council or the Medical Services Commission, or California Physicians' Service be obtained."

Your committee recommends that this substitute resolution *do pass.*

Mr. Speaker, I move the adoption of this portion of this report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded the substitute resolution do pass. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 15, introduced by Dr. E. W. Henderson of Alameda-Contra Costa County.

Your committee finds itself in accord with this resolution and recommends *do pass.*

Mr. Speaker, I move the adoption of this portion of this report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 16, introduced by J. Philip Sampson of Los Angeles County.

Your committee recognizes the need for the establishment of uniform standards governing the practice of medicine by the faculties of medical schools and similar institutions and therefore approves this resolution. Your committee recommends that this resolution *do pass.*

Mr. Speaker, I move the adoption of this portion of this report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? Dr. Burt Davis.

DR. BURT DAVIS (Santa Clara County): I should like to point out that that problem is quite a bit larger than that which was indicated by Dr. Culpepper's resolution which I heard presented to the A.M.A. in Miami last November. In that particular resolution Dr. Culpepper was considering the effect on the practice of medicine in Mississippi of the development of a medical school which, as we have heard previously, is a little short of funds, and therefore in order to induce good men to come and work for the medical school they had to be allowed to indulge in a certain amount of private practice.

I am totally in accord with the resolution as it was offered by Dr. Culpepper; however, I feel that his resolution is a little bit restricted. In these days in which we cannot tell exactly where all of the funds for research and all of the funds for teaching come from, the line that delimits a tax supported school and a nontax supported school, whether you are paying taxes through the federal government or the state government or your own county and local government for the maintenance of certain facilities or whether you are paying it through additional dues to your medical society, in these days it is a little bit difficult to define the exact origin of the money that goes for these purposes. Therefore I should like to add the following resolve which would state:

"And be it further *Resolved,* That the Delegates of the A.M.A. from California Medical Association urge the House of Delegates of the American Medical Association to broaden the scope of this study and to examine the entire problem regardless of the tax status of the institution involved."

VICE-SPEAKER BAILEY: You have heard the amendment. Is there a second to it?

. . . The amendment was seconded.

VICE-SPEAKER BAILEY: Now it is open to discussion.

DR. ROBERTSON WARD (San Francisco): Mr. Speaker, I'd like to not discuss the amendment but to discuss the original Culpepper resolution and tell the House of Delegates what it is now, where it is now, and what is back of it.

VICE-SPEAKER BAILEY: Dr. Ward, if we could get this amendment cleared up first it would be a little easier.

DR. WARD: My discussion would be on that. This was turned over to the Council on Medical Education and Hospitals for study and report at the coming session of the American Medical Association House of Delegates. I tried to find out from Dr. Cline before he left here this morning to attend a meeting of that council what action they had taken on it and what we were liable to be called upon to do at the next meeting of the House of Delegates of the American Medical Association. He said the Council had given this a very thorough study and was going to come in with a recommendation that is very much along the line of the amendment to the resolution that Dr. Davis has just introduced, so that I would be in favor of passing this amendment.

You cannot instruct the delegates to the House of Delegates from California to do thus and so because just like this House of Delegates their action is determined by recommendations of the Reference Committee to which that resolution has gone and been debated on the floor. All you can do is to let them know what our sentiments are and to be guided by those in their procedures. I am in favor of the amendment to this report by the Reference Committee No. 3.

VICE-SPEAKER BAILEY: And you are in favor of Dr. Davis' sentiments. That then leaves this amendment for vote right now, unless there is further discussion.

. . . The motion to accept the amendment was put to a vote and carried.

Vice-Speaker Bailey: As a matter of fact we had better take the whole resolution now as amended and it has been moved and seconded. All those in favor of passing the report as amended will say aye.

. . . The motion was carried.

Dr. Weyrauch: Resolution No. 18, introduced by Dr. Dave Dozier of Sacramento County.

The committee feels that this is a subject worthy of consideration and recommends a *do pass*.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

Vice-Speaker Bailey: It has been moved and seconded. Any discussion? Dr. Morrison.

President Morrison: Having spent two years at this I would like to make a few remarks about this particular one. I am not even in favor of having it referred to the Council for study and a report coming back. I appreciate very much the sentiment that motivated this but it is my feeling that any person who sat in the House of Delegates and the Council long enough to be considered for these positions knows very well what he is taking on.

I feel not only about this office, but I feel about other key offices in the association, key committee appointments, and so forth, if a man is willing to give his time he should be reimbursed for out of pocket expenses, but certainly would not like to see a stipend attached to this office. To me it would cheapen the honor. Thank you.

Vice-Speaker Bailey: Is there any further comment or discussion? All those in favor of the resolution will say aye. Passed.

Dr. Weyrauch: No, the "noes" have it.

Vice-Speaker Bailey: It is not so ordered.

Dr. Weyrauch: Resolution No. 19, introduced by Edgar F. Mauer, of Los Angeles County.

Your committee realizes that the problem of dealing with refuse has become very important in certain areas. There are two committees in the C.M.A. at present interested and working together on this subject and your committee recommends that this resolution be referred to these two committees, namely, the Council's Committee on Public Health and Public Agencies and the Committee on Rural and Community Health.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

Vice-Speaker Bailey: It has been moved and seconded, motion to refer. Any discussion? Dr. Mauer back there.

Dr. Edgar F. Mauer: Mr. Chairman, there is a matter of some urgency about getting a policy statement from the House of Delegates regarding this; this is hardly a controversial issue. It simply backs up certain concepts concerning public health and public hygiene and I wonder if I would have permission to reword the original resolution to state it be referred to the Council as mentioned by Reference Committee No. 3 rather than the legislative representative, and thereby gain the support of the delegates of the California Medical Association for our example will be copied in the very near future.

Vice-Speaker Bailey: Dr. Mauer, you may move to amend this; just how are you going to do it?

Dr. Mauer: I would like to move to strike out from the resolved paragraph, words, "legislative representatives of the California Medical Association," and insert that, "the Council's Committee on Public Health and Public Agencies and the Committee on Rural and Community Health be instructed to utilize all means," et cetera. That comes very close to what we have here, doesn't it? That is the amendment.

Vice-Speaker Bailey: Is there a second?

. . . The motion was seconded.

Vice-Speaker Bailey: Any discussion?

. . . The motion was put to a vote, and carried.

Vice-Speaker Bailey: We go to the entire resolution. All in favor of the resolution as amended. Any discussion?

. . . The motion was put to a vote, and carried.

Dr. Weyrauch: Resolution No. 20, introduced by Dr. E. C. Rosenow, of Los Angeles County.

The committee agrees in principle with this resolution but wishes to amend it to a minor extent. The fifth "Whereas" shall now read:

"Whereas, The primary purpose of the pharmaceutical and drug houses is to sell drugs, and although ethical advertising is not to be condemned in any way, a clear distinction between advertising and education is essential; therefore be it

And the second "Resolved" shall now read:

"*Resolved*, That the Council be instructed to take any action it deems necessary to restore the sole responsibility for postgraduate medical education to recognized agencies responsible for medical education." And add a third "Resolved" to read as follows:

"*Resolved*, That the conditions under which physicians participate in programs sponsored by nonprofessional groups be formulated."

The final sentence of the printed resolution has been incorporated into the body of the resolution as a fourth "Resolved" and reads as follows:

"*Resolved*, That the intent of this resolution be introduced by an appropriate resolution before the House of Delegates of the American Medical Association."

Your committee recommends that this amended resolution *do pass*.

Mr. Speaker, I move the adoption of this portion of this report.

. . . The motion was seconded.

Vice-Speaker Bailey: It has been moved and seconded. Dr. Davis, Santa Clara County.

Dr. Burt Davis (Santa Clara County): I was somewhat surprised that no recognition has been given to the television program, Medic, and I wish to take this opportunity to offer it our congratulations because although we are the state in which most of the work has been done on the program there are five other states in their Houses of Delegates which have felt very kindly toward the project and have expressed themselves appropriately. Therefore I would like to add as possibly Resolved 3-a, or say 3½, or what have you, between the third and fourth resolves of the committee, "And be it further *Resolved,* That the television program Medic, which has been a cooperative effort with the Los Angeles County Medical Society, be commended."

Vice-Speaker Bailey: You have heard the additional resolved, as amended. Is there a second?

. . . The resolution was seconded.

Vice-Speaker Bailey: Any discussion?

. . . The motion was put to a vote, and carried.

Vice-Speaker Bailey: We will take the entire resolution. Any further discussion on it as amended? All those in favor will say aye.

. . . The motion was carried.

Dr. Weyrauch: Resolution No. 21, introduced by Dr. L. C. Burwell, of Los Angeles County.

The committee feels that hospital accreditation is a very important subject with respect to the patient's welfare. We also feel that the Joint Board of Accreditation is cognizant of this obligation. This Board, which has been in existence for only four years, consists of four medical groups, namely, the American Medical Association, the American College of Surgeons, the American College of Physicians and the Canadian Medical Association, as well as the American Hospital Association.

Your committee feels that four years is not a sufficient time to evaluate the progress of this Board and that we should defer action until a later date. For these reasons your committee feels that we should recommend that this resolution *do not pass.*

Mr. Speaker, I move the adoption of this section of this report.

. . . The motion was seconded.

Vice-Speaker Bailey: It has been moved and seconded, do not pass. Any discussion?

. . . The motion was put to a vote, and carried.

Dr. Weyrauch: Resolution No. 22, introduced by Sam S. Woolington, of Los Angeles County.

Your committee concurs with this resolution and would like to add the following statement as a part of this committee report.

"*Polio Vaccine Program for Needy Children.*

"This emergency inoculation program stems from the realization that this year there is a gap in local health facilities in Long Beach. Polio vaccinations have been given to first and second grade school children and would not be available to others except from private physicians. The Long Beach Pediatric Society, with the approval of the Long Beach branch of the Los Angeles County Medical Association, therefore organized the following program. It provides polio inoculations of those children whose financial eligibility has been determined by proper screening. Members of the Long Beach Pediatric Society will, of course, contribute their services without charge for giving inoculations.

"Service clubs and other Long Beach organizations were invited to contribute toward the purchase of polio vaccine. The Long Beach Council of Service Clubs agreed to cosponsor the project and handle the fund raising and the details of collecting. The Long Beach Children's Clinic, being an already incorporated, nonprofit, tax-exempt organization, agreed to accept and distribute the funds, establishing a separate Polio Vaccine Fund of the Children's Clinic. The Auxiliary of the Long Beach branch of the Los Angeles County Medical Association and other community volunteer women's groups have offered to furnish volunteer help for the program. It is estimated by local Community Chest officials that 1,000 to 5,000 children will need this service. For this number a goal of $15,000 was set. Eligible families include those on general relief, state aid, disability benefits, unemployment compensation, veterans' pensions, and other low income groups. Eligibility will be determined by screening under the direction of social service workers from Community Chest agencies who are also volunteering their services. Our standards for eligibility are a modification of the standards of the Aid to Needy Children program of California.

"The site for screening and for giving the inoculations in our area will be the Community Chest Building. Dates at which parents of needy families should come to the Community Chest Building to apply for the vaccine have been publicized in local newspapers. At these times, eligibility will be determined and postcards will be filled out for each eligible child. As soon as the vaccine is available, postcards will be mailed giving the date for the child's first injection. It is planned to give two injections three weeks apart. All plans are of course dependent on distribution and allocation of the vaccine. The only limitation to the program would seem to be the amount of vaccine available and the amount of funds raised to purchase the vaccine.

"The Board of Education has approved distribution of a letter to parents of first and second grade children who are receiving the polio vaccine injections in schools without charge, offering an opportunity to these families to contribute to the Polio Vaccine Fund. Mr. H. Burmester, and Mr. Sam Cameron of the Long Beach *Press-Telegram* arranged for their paper to underwrite the printing expenses and postage involved in preparing the letter and self-addressed envelopes to be sent out through the schools.

"Long Beach doctors are confident that this program is effectively fulfilling the need in this area to provide polio vaccine injections to children whose parents desire this service and are unable to afford it. We have prepared this detailed account of the organization of our local program so that doctors from other areas of the state can quickly organize a similar plan if no such facilities are now available in their communities. Doctors desiring further details may contact any member of the Long Beach Pediatric Society Committee."

Mr. Speaker, we recommend that this resolution and statement *do pass.*

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? Dr. Ward, would you care to discuss it?

DR. WARD: This is a very timely program. I don't know whether you can all read the headlines; the headlines don't tell the story. I am up here, of course, to make a plug for this resolution and the added data that Dr. Weyrauch's committee has given so that any committee in California knows just how to organize to see that the needy children get their polio vaccine. The headlines say, "Ike backs polio shots in schools for free." I would like to read you the first line of this article which completely denies the headlines and it says, "President Eisenhower said today, 'No American child is going to be denied the Salk polio vaccine because of inability of his parents to pay for it.' " That is what the paper calls for free.

This is a very timely program and I hope that it has your support. I am sure it will.

VICE-SPEAKER BAILEY: Thank you, Dr. Ward. Dr. Dwight Wilbur.

DR. WILBUR: The Council is concerned with the statement on the question of polio vaccine and will consider it at the conclusion of the meeting of the House of Delegates. I am not sure what that statement will contain; possibly there might be a slight conflict between the action or rather recommendation of the committee and the statement of the Council. I would like to suggest, therefore, that an amendment be made to this motion that the resolution and the accompanying statement be referred to the Council and then, with the understanding that the Council will have to sell the House of Delegates on this matter. Then, in its statement there will be no conflict between that which the House of Delegates makes with regard to this letter and that which the Council makes with regard to the whole problem of polio vaccine.

VICE-SPEAKER BAILEY: Is there a move to refer for the purpose of flexibility?

. . . A motion to refer was made and seconded.

VICE-SPEAKER BAILEY: Any discussion?

. . . The motion was put to a vote, and carried.

VICE-SPEAKER BAILEY: We will ask for the report as amended. All those in favor say aye.

. . . The motion was put to a vote, and carried.

DR. WEYRAUCH: Resolution No. 23, introduced by Owen F. Thomas of Sonoma County.

We find ourselves in accord with this resolution and recommend *do pass.*

Mr. Speaker, I recommend the adoption of this section of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded this section of the report be adopted.

DR. WILBUR: I speak again; unfortunately, I was unable to appear before the Reference Committee. I think one problem we ought to give consideration to, that is, there has been considerable difference in the report that was made by the Medical Task Force of the Commission on Medical Services and the commission itself and I believe there are certain recommendations which the commission has made which the American Medical Association does not wholeheartedly endorse. I'd like to suggest two things. First, that Dr. Murray, if he is willing, tell us whether or not this resolution is in keeping with the feelings of the American Medical Association. Second, I would like to suggest an amendment and that is that the House endorse not only the recommendation of the Hoover Commission, as Dr. Weyrauch recommended, with that from the American Medical Association standpoint, but that it also endorse the findings of the Medical Task Force resolution because they are more extensive, in my judgment at least, and much more suitable than those of the Commission alone.

VICE-SPEAKER BAILEY: Dr. Murray, would you care to speak?

DR. MURRAY: Mr. Speaker, members of the House: The American Medical Association, as Dr. Wilbur has pointed out, is not quite in accord with the report of the Hoover Commission itself. Now you understand the Hoover Commission consisted of some task forces, one of which is a medical task force. The American Medical Association has not completed its study entirely but there is strong indication that it is in favor of the report of the Medical Task Force but not in favor of the report of the entire Hoover Commission. So far as medical affairs are concerned, I think the American Medical Association will endorse practically entirely the report f the Medical Task Force of the Hoover Commission.

VICE-SPEAKER BAILEY: Thank you, Dr. Murray. Dr. Wilbur, would you care to change your position? You now endorse the recommendation of the Hoover Commission and also the findings of the Medical Task Force of the Hoover Commission? Would you care to limit it to the latter?

DR. WILBUR: I think the best conclusion would be to recommend the House endorse the report of the Medical Task Force of the Hoover Commission and leave it to the Council as to endorsement of the Hoover Commission on the federal medical service.

VICE-SPEAKER BAILEY: Is there a second?

. . . The motion was seconded.

VICE-SPEAKER BAILEY: Any discussion?

. . . The motion was put to a vote, and carried.

VICE-SPEAKER BAILEY: Then Resolution 23 as amended is before the House. Is there any discussion?

. . . The resolution, as amended, was put to a vote, and carried.

DR. WEYRAUCH: Mr. Speaker, I am going to take this opportunity to express my appreciation to Drs. Marlow and Smith for their diligent and continuous cooperation in preparing this report and serving on this committee.

Mr. Speaker, I move the adoption of this amended report as a whole.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion on this amended report as a whole?

. . . The motion to adopt the report as a whole, as amended, was put to a vote, and carried.

VICE-SPEAKER BAILEY: Thank you very much, Dr. Weyrauch.

SPEAKER CHARNOCK: I'd like to make one announcement at this time. The hotel has announced that checkout time shall be any reasonable time, such as between 5 and 6 o'clock, for example.

VICE-SPEAKER BAILEY: We now have Dr. Foster here. I'd like the opportunity of introducing him as your new Vice-Speaker. Dr. Foster.

We now have the report of Reference Committee No. 4, chairman Dr. Dorothy Allen.

DR. DOROTHY M. ALLEN (Oakland): Mr. Speaker, members of the House of Delegates: Your committee consisting of Herbert Moffitt, Jr., from San Francisco; James E. Feldmayer, from Tulare County, and myself, have held hearings on all constitution and by-laws amendments referred to it and make the following recommendations.

Constitutional Amendment No. 1, introduced by Donald D. Lum. Subject: Physicians' Benevolence Fund, Inc.

This constitutional amendment as submitted is approved by your committee unanimously and it now must lie on the table for one year, hence no action taken.

VICE-SPEAKER BAILEY: That requires no further action. We will proceed to the next by-law amendment.

DR. ALLEN: By-Law Amendment No. 1. Subject: Reorganization. Introduced by Dr. Donald D. Lum, Committees and Commissions of State Organization. The printed copy is in your hands and there are certain changes, typographical changes that I would like to take up with you.

Under Section 1, Section D, Item No. iii, Cancer Commission, has been deleted and the following three items should then be numbered as iii, iv, and v.

On Page 4 of your mimeographed copy under Section 5, on Line 3, the word "nine" should be changed to "twelve," and the first part of the sentence should then read, "Unless otherwise provided by these By-Laws each of the standing committees listed in Section 1 of this Chapter shall consist of not less than three nor more than twelve members."

With these corrections the amendment will appear as presented by Dr. Lum.

Your committee further recommends the following addition or modification in this By-Law amendment of Section 1-D, the addition of another committee, Committee on Other Professions.

No. 6, Section 3, Paragraph 1, to read as follows: "Unless otherwise provided in these By-Laws each commission shall consist of not less than five nor more than nine members, the number of members of each commission being determined by the Council, however, the number of members of each commission may be altered outside of the foregoing limit by the Council from time to time."

Section 3, Paragraph 3, the following sentence to be added: "The Commission on Public Policy shall be composed of members of the Legislative Committee and members of the Public Relations Committee."

Section 11, the heading to read as follows: Publication of Commission and/or Committee Reports." The same insertion of "or" to be made in the first line so it will read, "Reports of the Commission and/or their standing Committees, and the report of Special Committees, as approved by the Council, shall be published in a brief preconvention bulletin or in the official journal."

The last paragraph of the resolutions to read as follows: that "Section 6 of Chapter IV of the By-Laws of this Association is hereby repealed with the former Section 7 being renumbered Section 6."

Your Reference Committee is pleased to note that the Commission on Medical Services will include sub-committees, thus will be implementation with respect to the health insurance requested by this House by its unanimous passage of Resolution 26 of last year.

Your committee recommends that this amendment *do pass*.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: The chair believes that the intent of the By-Laws has not been changed by these suggestions and therefore suggests that it is in order to proceed on this right now. It has been moved and seconded that this do pass. Is there any discussion?

. . . The motion was put to a vote, and carried.

DR. ALLEN: As you can see, the passage of the Amendment No. 1 makes Amendments Nos. 2 and 3 unnecessary. They have been taken care of in the passage of No. 1.

For expediency may we take you to Amendment No. 5 before taking up No. 4. Amendment No. 5 is introduced by Dr. Moffitt. The subject, Separation of Eye and Ear, Nose and Throat sections.

Your committee recommends a *do pass* on this amendment.

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded.

. . . The motion was put to a vote, and carried.

DR. ALLEN: No. 4, introduced by Homer C. Pheasant. Subject, Section on Orthopedics.

Your committee recommends a *do pass* with the following changes:

"*Resolved,* That Chapter IV, Section 1(a) of the By-Laws be amended by adding 'Orthopedics' to the list of Scientific Sections and by changing the number of Scientific Sections from fifteen to seventeen."

The committee urges that there be close cooperation between the two sections, namely, Orthopedics and the Industrial Medical and Surgical Section, close cooperation between the two sections on planning their scientific sections.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. ALLEN: Mr. Speaker, I move the adoption of this amended report as a whole.

. . . The motion was seconded.

VICE-SPEAKER BAILEY: It has been moved and seconded the report be accepted as a whole. Any discussion?

. . . The motion was put to a vote, and carried.

VICE-SPEAKER BAILEY: Thank you very much, Dr. Allen.

SPEAKER CHARNOCK: The next order of business is report of Committee on C.P.S. business, Dr. Kilroy, Sacramento, chairman.

DR. KILROY: Mr. Speaker, members of the House: Your C.P.S. Reference Committee, consisting of Dr. Frederick Ewens, Dr. Fred Olson and myself, has reviewed the report of the President of C.P.S. Board of Trustees. No detailed discussion before this House will be rendered by your committee—but several items within the report merit additional comment.

Your committee has noticed a satisfactory growth in subscribing membership and we could encourage a comparable increase in the coming year. Your committee noticed with interest the thinking on the part of C.P.S. in relation to forms of prepayment other than the service type of plan. It is the feeling of this committee that C.P.S. business continues to show the most benefit inherent within these various types of insurance plans and should never be content with an attitude that one plan alone answers all of the needs of the public.

Governmental agencies are now and have been investigating ways and means for the covering of those groups heretofore considered uninsurable by private insurance companies. We feel that C.P.S. should carry out a continuing study leading to the development of plans whereby that group can be insured without looking to government for assistance.

Your committee read with considerable interest that section of the report dealing with the indigent program. We recognize the recommended saving in the tax picture in the development of an indigent care program and therefore the committee asked California Physicians' Service to do all within its power to encourage the inclusion of this indigent group under a system of voluntary insurance such as C.P.S. Your committee recommends that the Board of Trustees of California Physicians' Service work in close liaison with the California Medical Association, leading to the formulation of those plans necessary to carry out this recommendation.

Your committee commends the very considerable time spent by the Board of Trustees and its president on behalf of the physicians of California. We commend them on their personal sacrifice on these time-consuming efforts.

We commend Dr. Francis Hodges for the complete nature of the report he submitted.

I move the adoption of this section of the report.

. . . The motion was seconded.

SPEAKER CHARNOCK: This section of the report has been moved and seconded. Any discussion?

. . . The motion was put to a vote, and carried.

DR. KILROY: Resolution No. 6, introduced by Herbert C. Moffitt, Jr., San Francisco Medical Society.

"*Resolved,* (1) That this House of Delegates direct the C.P.S. Trustees to set up a type of policy immediately which would include deductible and co-insurance, and (2) that C.P.S. be directed to push the sale of this type of insurance immediately with even greater vigor than it sells the present type policy, and (3) that medical fees under C.P.S. indemnity would constitute the normal private fees of the individual physicians which would eliminate the necessity of a fee schedule."

Your committee does not feel that Part 1 of the resolution necessitates action—the intent of this resolution has already been established by a resolution of the House of Delegates two and one-half years ago, saying an indemnity scale was authorized, and last year it was recommended to this body that California Physicians' Insurance Corporation was authorized by the state to do business. In two years all the House authorized the indemnity corporation to sell were those policies in those counties requesting it and that action was taken by the House two years ago whereby deductible and coinsurance features are available to any county society, subject to the approval of the State Insurance Commission.

Concerning the second paragraph of the resolution, it is not the function of California Physicians' Service to enter into this type of insurance. The California Physicians' Insurance Corporation cannot push the sale of indemnity insurance until the individual county medical society has requested that this type of insurance be sold within its county.

The request made in the third paragraph of the resolution that the normal private fees of the individual physician constitute the payment under an indemnity plan is a subject which merits further thought, as that constitutes an investigation and study of medical insurance plans, your committee therefore offers this substitute resolution:

"*Resolved,* That the Medical Services Commission is requested to study and report on the feasibility of establishing the normal private fees of the individual physician as the medical indemnity payments under California Physicians' Insurance Corporation."

Mr. Speaker, I move the adoption of this substitute resolution.

. . . The motion was seconded.

SPEAKER CHARNOCK: The substitute resolution has been moved and seconded. Any discussion? Dr. James Thompson.

DR. JAMES H. THOMPSON (San Francisco): As author of this resolution it was our original intent to stimulate C.P.S. to do something about indemnity insurance and to recommend that C.P.S. help pioneer combined indemnity and co-insurance type of policy similar to that type of policy being sold in northern and southern California by some private companies at the present time.

As the report now states, it is pointed out that such insurance is available but that local counties have not requested indemnity. It also removes a phrase that recommended that C.P.S. be forced to sell indemnity insurance in those counties requesting it.

Since C.P.S. is a doctor's plan and there is a large group of us that service insurance, the only type of health insurance, I believe, that C.P.S. should actively sell both service and indemnity to show that doctors also like and possibly prefer indemnity. I would like to move that the substitute Resolution No. 6 be changed as follows:

The amendment has an addition at the end of the substitute resolution which will read, "and that selected experimental subscriber groups be started within the year as a practical aid to this study, and be it further *Resolved,* That in counties requesting indemnity insurance which has been approved by the California Insurance Commissioner, California Physicians' Insurance Corporation be directed to sell indemnity insurance with the same interest it is using in the sale of service contracts." Thank you.

SPEAKER CHARNOCK: Is there a second to that amendment?

. . . The amendment was seconded.

DR. CHARLES A. NOBLE, JR. (San Francisco): This House of Delegates voted at its last session to permit the sale of such indemnity insurance policies in those counties requesting it. That permission was of course granted, but the granting of permission and active sale of that insurance are two entirely different things and it is partly because of this that this resolution is introduced. There are two counties, one of them San Francisco County, that requested that indemnity insurance and allowed it to be sold and has requested this of California Indemnity Insurance Company.

It seems to me that it is the responsibility of the leadership of an insurance company to push sales of an insurance when that is requested. Physicians themselves could merely request that certain policies could be drawn up and until that is done it seems to me that the public at large may easily get the impression that because only service policies are being offered by physicians that that is their major choice. I think now that the public at large will be served better and physicians will be happier the sooner it becomes possible to implement the development of such indemnity policies.

DR. CRANE (Los Angeles County): The emphasis of the Reference Committee seems to be on the fact that this indemnity or deductible type of insurance must be requested in order for C.P.S. to push it. As I recall it, when we authorized the $6,000 ceiling we also put a similar tag on it that it was to be requested by the county groups if they wanted it. Now everybody here, I am sure, knows that what has happened with reference to the $6,000 ceiling. That has been pushed, and I am sure not always at the request of the county.

A gentleman from Riverside I spoke to several weeks ago told me that in the process of Riverside County being worked over to this particular deal, the representatives of C.P.S. made the statement to him that Los Angeles County was going to be a tough nut to crack on the $6,000 ceiling, and I am sure that is true. We have been approached repeatedly, the Council of the Medical Society of Los Angeles, repeatedly on the $6,000 ceiling, and I don't recall the Council ever asking for that particular thing.

Now, what these men from San Francisco want and what most of us want is for the C.P.S. lay individuals and the doctors who are working with this thing to put just as much effort into one as into the other and if they don't do that I think it is up to this House of Delegates in the next year to consider very seriously changes in personnel of those groups because if we are dealing with people who are not interested in what we want I think it is time we got people into those positions who are interested in doing what we want.

SPEAKER CHARNOCK: Any further discussion of this amendment? Hollis Carey.

Dr. Hollis Carey: Mr. Speaker, members of the House: I have served on the Medical Services Commission, as most of you know, for a period of three years. I don't think you can consider it an inactive group. In the past year, as I reported to you in my special report, we had two meetings in this last past year on the deductible type of insurance. You will remember that your commission gave you certain recommendations in that regard. First, that we were studying this particular type of insurance with a great deal of interest. We do not feel we could put it any stronger than that, that we are watching to see just exactly what deductible insurance means in anything but a highly selected group, which it is at the present time.

Another point brought out by Dr. Crane was that if the people in it who were responsible for the consideration of these things were not active enough he would like to replace them. I think that we have had six meetings of the commission this year. We are working with C.P.S., we are working with the Council; all of these factors have been considered and are being considered. I feel personally that the commission and C.P.S. are moving as rapidly as is feasible and as rapidly as it can economically and soundly move. I think that this action, if taken on the part of this House without the proper background information which is available to us as a commission and which is available to you if you want to attend those commission meetings with us, would be most ill advised.

I think the substitution of your Reference Committee is factual and sound. I would urge you, gentlemen, not to push through resolutions on those things which we do not feel are yet presently factually sound and press us into the position whereby we will have to commit some error of judgment. This must be necessarily slow. I regret that; I am just as anxious as you are to insure every indigent in the State of California if that is possible, but at the present moment the only experiment that is going on in this regard in California has been running for a period of three years. We still do not have all the bugs worked out on that but we hope in the very near future to have supplemental groups set up that will prove the importance and the good or bad of this condition.

As Mr. Hamman has said, as far as C.P.S. is concerned, he is perfectly willing to lose a small piece of his financial shirttail but he doesn't want to lose the whole shirt.

Dr. Hill: I rise to a point of information. I would propose a rereading of the proposed committee report.

Speaker Charnock: Dr. Thompson, will you come up here and let's get this resolution. Have you a few extra copies? Now, Dr. Thompson, will you reread this please?

Dr. Thompson: I will read just the addition to the resolution, the substitute resolution which you have. This goes right on with the same sentence, states, "and that selected experimental subscriber groups be started within the year as a practical aid to this study." If I may just deviate slightly, this would be a very select group, very comparable to what some of the private companies are doing. Note that it would be experimental, with action; the fact is that only a small group would entail a large amount of money if these groups went wrongly. We all agree in medicine we have to have some practical trial of our theories and that was the intent of this idea.

"And be it further *Resolved*, In the counties requesting indemnity insurance which has been approved by the California Insurance Commissioner, California Physicians' Insurance Corporation be directed to sell indemnity insurance with the same effort it is using in the sale of service contracts." Thank you.

Speaker Charnock: Do you wish to discuss that? Dr. Teall.

Dr. Ralph C. Teall: Mr. Speaker, gentlemen: I have listened with great interest to all the discussion on this particular resolution, particularly with interest to Dr. Carey's discussion. So far as I can see I agree wholeheartedly with what Dr. Carey had to say and yet I'd like to urge you to pass the proposed amendment on which there seems to be divergent opinion. As far as I can see there is only one question here we need to concern ourselves with in the proposed amendment to the committee report, that is the matter of whether we direct C.P.S. to go out and find experimental groups. That could be further amended by screening, if possible; that may take quite a little screening. It seems to me the discussion revolves around the fact whether a California Insurance Corporation or what you call it, our California Insurance Corporation be directed to sell indemnity insurance with the same effort as used in the sale of service contracts. I'd be very eager to hear any discussion at this point as to whether any objections on anybody's part in the House to this position. Unless there be valid objection to this particular position it seems to me no particular harm and a great deal of good can come from the support of the amendment of the Reference Committee.

Speaker Charnock: Dr. Teall, do you wish an amendment?

Dr. Teall: I offer an amendment to the amendment in the paragraph which reads, "selection of subscriber groups be started," simply to add the words that it recommends that the selected subscriber groups be started where possible within the year.

Speaker Charnock: Any discussion of the amendment to the amendment?

Dr. Gibbons (San Francisco): I would like to discuss the general question. As secretary of the Medical Services Commission I rather welcome the resolution that has been put in and is now under discussion. I wish more of the resolutions of the commission would urge that the various medical societies be further informed of the California Physicians' Indemnity Service and I think anything that can be said or done to stimulate further action along this type of insurance is welcome to us.

In regard to Dr. Teall's substitute amendment, if that means that it would simply not make it mandatory on us to proceed immediately, allow us a little time to study, I think I would be willing to accept that.

SPEAKER CHARNOCK: If Dr. Thompson will accept that change we won't need to vote on Dr. Teall's amendment. Do you accept that, Dr. Thompson?

DR. THOMPSON: Yes, I will accept that.

SPEAKER CHARNOCK: That is squared away. We are now discussing the amendment as it has been offered.

DR. HODGES: For the benefit of clarification and not persuading one way or the other on any of this, and this discussion applies to all of these, let me tell you something about the background of the two companies. First of all, California Physicians' Service was set up by an enabling act and operates under the Attorney General of the State of California. We are not an insurance corporation.

Secondly, California Physicians' Insurance Corporation which was set up at the direction of the House of Delegates is an insurance corporation and acts directly under the Insurance Commissioner of the State of California. They are two different corporations, one being to sell indemnity insurance, the other being to sell service contracts. That is why the same company cannot with as great vigor sell one as the other. We are directed and bound by those two agencies, the Attorney General on the one hand and the State Insurance Commission on the other. One corporation is to sell one sort and is ready to sell it and is happy to sell it, and the other applies on the other hand—and you may remember of course that your House of Delegates meeting said that these contracts were to be sold and the indemnity contracts were to be offered in counties requesting it. We would feel we would be acting outside our jurisdiction if we went into a county offering the type of plan that had not been requested by that county. I think that background is essential if you are to act upon these resolutions.

DR. CAREY: In my remarks a moment ago I was referring particularly—and I don't think I made it plain—to the fact when Dr. Thompson read this he read the specification in it of one year, he said that that must be done within one year. In the printed type that I have in my hand at the time this was not in there. I am not objecting particularly to this, therefore, since the typed copy since handed out does not contain that stipulation.

DR. BOEHME (Los Angeles): A point of information, please, Mr. Speaker. I have lost my copy and I think others have, too. The discussion is varied. You make an amendment to the amendment, and in the resolution we have to have a pilot plan of indemnity, we couldn't sell indemnity and deductible insurance, or is this to be indemnity insurance *per se*?

SPEAKER CHARNOCK: My understanding of this amendment, and there is only one because this proposed amendment has been accepted with the small change by Dr. Teall—that they get out and sell some indemnity insurance. Does Dr. Thompson have anything more to say about that? You wanted to speak?

DR. THOMPSON: I didn't see the copy that was given to Dr. Carey, but in the copy that I gave to the chairman in which "within this year" is included, there might have been a typographical error on some of these copies, and that this selected experimental subscriber group be started within the year was in the original.

SPEAKER CHARNOCK: That is in the amendment we have here and is changed. It is recommended experimental subscriber groups be started within the year as a practical aid to this study, "and that it be further *Resolved,* That the county requesting indemnity insurance which has been approved by the California Insurance Commission, California Insurance Corporation, be directed to sell indemnity insurance with the same effort it is using in the sale of service contracts." That is the amendment that has been submitted. Is there any amendment to the amendment?

MEMBER FROM THE FLOOR: A point of information. I ask the question of Dr. Kilroy on the wording, have you not eliminated the principle of coinsurance and deductible?

DR. KILROY: I will answer it. No, you have not. Under the previous action by this House whereby a county may request that indemnity insurance be sold within that county they also retain the right to specify that they wish included in that any additional features such as dollar deductibility or coinsurance.

SPEAKER CHARNOCK: Thank you. Dr. Reynolds, of Alameda-Contra Costa County.

DR. T. ERIC REYNOLDS (Alameda-Contra Costa County): I think it might facilitate our action on this if one or two points were clarified. I am sure it is the general thinking of the California Physicians' Service Trustees, as well as the Medical Services Commission, that their implementations of indemnity insurance are being furnished wherever there is a legitimate request for that implementation.

I think many of us might agree also that we would be quite happy if that could be done within a month, or whatever time it might take to find that proper experimental group and start working on it. It seems that there is some confusion in the minds of several people as to whether or not the proponents, including Dr. Thompson, wish the stipulation of one year included; if he does I would like to suggest an amendment to Dr. Thompson's amendment and that the period of one year be deleted and that "all possible haste" which is at the same time consistent with good economic policy be substituted for the stipulated period of one year, that is, if you have not changed it.

Dr. Thompson: I have not changed it.

Speaker Charnock: If Dr. Thompson will accept that change, eliminating "within the year," we will not have to put another amendment on it; otherwise it is amended to change that. Dr. Thompson, do you accept that, do you want it changed?

Dr. Thompson: I think we ought to vote on it.

Speaker Charnock: Is that amendment to the amendment seconded?

. . . The amendment to the amendment was seconded.

Speaker Charnock: Those in favor of the amendment presented by Dr. Reynolds, striking out the term "within the year," will signify by saying aye. The ayes have it, the amendment of Dr. Reynolds, eliminating "within the year" has been passed.

You will now vote upon the amendment as amended. Is there any further discussion on the amendment as amended?

Dr. A. B. Sirbu (San Francisco): I rise to a point of clarification. It seems to me before we can vote on this intelligently we should know just how it could be implemented. As I understand the intent of this amendment the purpose was to respond to those counties who requested, "and to with equal vigor sell, attempt to sell that type of insurance, on the presentation of the present Board of Trustees as elected." Apparently we have two separate organizations, I'd like to know, do we have two separate boards of trustees, do we have two separate sales forces? Who is going to implement this anyway? If we don't have an equal organization from the indemnity portion of the California Physicians' Service. the whole debate is academic.

Dr. Hodges: You are required by law to have two separate organizations. California Physicians' Service does not sell insurance; so we must have two separate organizations. We do not even have the same directorate. In some cases members of the Board of Directors of C.P.S. are on the Board of Directors of the California Physicians' Insurance Corporation. The two must be separate according to the State of California. If you request further clarification on that I suggest you ask our legal counsel, who can point out this with respect to the fact they must be different. There are separate organizations assigned to the selling of these two; they cannot be the same.

Speaker Charnock: Dr. Hodges, can you tell us if there are a proportional number of salesmen selling one and the other? I think that is the meat of the question, if a sufficient sales force is selling indemnity insurance.

Dr. Hodges: You have the same force to sell indemnity insurance under the demand at present in the State of California. If all the counties of the State of California should request indemnity insurance there would be a sales force set up for that purpose. As it is there is not and there could not be, it would not be economical.

Speaker Charnock: I think that answers the question. Mr. Hassard, do you have anything further to add?

Mr. Hassard: Not unless the House wishes.

Speaker Charnock: If the House wishes any further clarification by legal counsel? We will now vote. Those in favor of the amendment as amended will signify by saying aye.

. . . The motion was carried.

Speaker Charnock: Are you ready to vote upon Resolution No. 6, substitute resolution, as amended? Those who are in favor of Resolution No. 6, a substitute resolution proposed, as amended, will signify by saying aye.

. . . The motion was carried.

Dr. Kilroy: Resolution No. 7, introduced by Herbert Moffitt, Jr., San Francisco Medical Society.

Resolved, That C.P.S. be directed to develop these economic and geographical spheres and to develop the premium schedules with accompanying fees which together will be commensurate with these great differences in subscriber income and the cost of providing the best medical care."

Because this is a subject of continuing study by the subcommittee on principles of fee schedules of the Medical Services Commission your committee sees no necessity for this resolution and therefore we recommend it *do not pass.*

Mr. Speaker, I move the adoption of this portion of the report.

. . . The motion was seconded.

Speaker Charnock: The adoption of this section of the report has been moved and seconded. Any discussion?

Dr. Claude P. Callaway (San Francisco): Mr. Speaker, members of the House: The resolution is simply asking C.P.S. to recognize two facts, one, that there is a great difference in providing hospital services for large numbers of communities all over the state, and the second fact has been brought out about these of the study committee that there is a difference in cost of providing the best medical care varying from one community to another. Actually we know that that is true, but we do not know that there has been any direction to implement a study directed toward developing different fee schedules throughout the state.

Principally I think that the proposition to accept the resolution would take different lines; maybe those are difficulties in administration and decentralizing situations, the difficulties of determining where such boundaries would be and to decide them, and finally that of the mobile population of the state. Actually, these are administrative difficulties, however heavy they may be, and we can concern ourselves as to whether or not C.P.S. is flexible enough to meet such challenges of facts that we know to exist.

I believe that the funds of C.P.S. are probably capable of such applicability and that we should find out. I think that may be the impression of justice to patients in various communities, certainly it may be a real question to members of, loyal members of C.P.S. in many communities who find it increasingly difficult to practice under present fee schedules. Primarily, though, it may be a question of good will between physicians of various communities and an understanding of problems which occur in communities other than their own. I should like to be directed and know for sure that such studies have been directed by the Council along these lines because to your knowledge although the facts are there we should like to know that there had been specific direction to study and implement the result of certain geographical or economic differences.

Dr. Kilroy: Only to this extent, that we were informed that this has been a subject of study by this particular subcommittee of the Medical Services Commission. We had no information that they have been directed to implement this and to bring forth any specific report on that particular item. That has been a phase of the many studies that they have carried on.

Speaker Charnock: Dr. Carey.

Dr. Carey: Mr. Speaker, members of the House: I am sorry to take up your time. I think we need a little clarification on this. As you know, in brief, C.P.S. has been directed to determine these economic factors, etc. That is not a function of C.P.S. As I explained to you in my report of last Sunday, the Medical Services Commission through its subcommittee has charge of this implementation of changes in fee schedules and through them to the Council and to the C.P.S. Board of Trustees. This was not a logical function of C.P.S., this is a function of C.M.A.

Speaker Charnock: Thank you, Dr. Carey. Are you ready to vote upon this resolution?

. . . The motion was put to a vote, and carried.

Speaker Charnock: That will throw out or negate this resolution.

Dr. Kilroy: Resolution No. 8, introduced by Dr. Herbert Moffitt, San Francisco Medical Society.

"*Resolved,* That the C.P.S. be obligated to pay the $4,200 to $6,000 fee schedule on any and all contracts in which the premium is collected on this basis, regardless of the quoting of a composite premium."

Your committee feels that that resolution covers a subject which is an actuarial and administrative problem. The committee feels that the composite rate is perhaps misunderstood by some physician members of C.P.S. and to eliminate this misunderstanding we offer the following explanation.

In cases where the employer pays a substantial portion of the dues of each of his employees, and makes that contribution on a so-many-cents-per-dollar basis, he then requests a single rate for all people covered. This is a composite rate. This may be illustrated as follows: That in a group of one thousand employees, five hundred of whom received less than $4,200 per year and five hundred of whom received between $4,200 and $6,000 per year, the composite rate is figured as follows:

Five hundred at $3 per person and five hundred at $4 per person, the composite rate is then $3.50. The doctor's fees for the first five hundred employees are paid on Schedule A, doctor's fees on second five hundred paid on Schedule B, irrespective of composite rate. Since your committee feels that is the proper medium in such cases where a composite rate is offered and since this committee has been informed by representatives of the Board of Trustees of C.P.S. that that is the practice at the present time, your committee therefore recommends *do not pass.*

Mr. Speaker, I recommend the adoption of this section of the report.

. . . The motion was seconded.

Speaker Charnock: It has been moved and seconded. Any discussion? Dr. Moffitt.

Dr. Moffitt: I disagree with some of the examples cited, but as they introduced this resolution, as I say, the mere fact that it has been introduced has led to a better understanding between us and the C.P.S. Trustees, and on that basis we would go along with the recommendation of the committee that it do not pass.

Speaker Charnock: Thank you. Any further discussion? Those in favor of this section of the report signify by saying aye.

. . . The motion to accept this section of the report was carried.

Dr. Kilroy: Your committee wishes to thank the large number of physicians who attended the C.P.S. Reference Committee hearing and to express our appreciation of their interest and the advice given by them to our committee.

Your chairman wishes to thank Shirley Harcourt and the members of this committee for their many hours of service. Respectfully submitted.

Mr. Speaker, I move the adoption of the report as a whole, as amended.

. . . The motion was seconded.

Speaker Charnock: The report as a whole, as amended, has been moved and seconded. Any further discussion?

. . . The motion to accept the report as a whole, as amended, was put to a vote, and carried.

Speaker Charnock: At this time the chair wishes to thank each of the members of the Reference Committee. Several years ago some of our lady members of this House said we never made any use of our ladies. Now we have them, two of them have become chairmen of reference committees, and a very fine job they have done.

At this time, for just a moment I'd like to present Mrs. Matthew N. Hosmer, president of the Woman's Auxiliary to the California Medical Association, and she is sitting at the back of the House. Mrs. Hosmer, will you stand up?

And likewise Mrs. Stone, chairman of the Legislative Committee of the Woman's Auxiliary. Will Mrs. Stone stand up? Thank you.

There is no unfinished business, I am told by the secretary. Is there any new business?

MEMBER FROM THE FLOOR: I'd like to present an emergency resolution.

SPEAKER CHARNOCK: Dr. Buerger.

DR. WALTER R. BUERGER: This resolution is being presented and has the approval of the doctors of the Mental Health Committee of California Medical Association particularly and is as follows:

"The day before yesterday the City Councilors' Expansion Committee of Long Beach voted to postpone action for sixty days on an ordinance to certify psychologists locally. Since local psychiatrists are not content with the policies used in implementing the C.M.A. legislative program, this resolution is being introduced:

"WHEREAS, All treatment of mental aberrations is in reality the practice of medicine; therefore be it

"*Resolved,* That this legislation concerning it should be handled on a state, not a local level."

SPEAKER CHARNOCK: Under Chapter 5, Section 9, of the By-Laws, the Speaker of the House concurring, "shall refer said reports or resolutions and business to a Reference Committee." Now if you do not concur that we send this to a reference committee I would like a motion not to refer so that we can expedite that and vote on it at the present moment if you so wish.

. . . It was moved and seconded that this be done.

SPEAKER CHARNOCK: It has been moved and seconded that we do not need to refer that to a reference committee. All those in favor will signify by saying aye. It is carried.

Now any discussion upon the resolution? Those who are in favor of this resolution will signify by saying aye.

. . . The motion was carried.

SPEAKER CHARNOCK: The next order of business is the presentation of your officers and I will ask our president to present the new officers. . . . But first, Dr. Regan.

DR. REGAN (Los Angeles): As chairman of the Radio and Television Committee of Los Angeles County Medical Association I'd like to invite all the members of the House of Delegates and members of the C.M.A. to submit suggestions for subjects or stories for the forthcoming programs to be used in Medic. Send your stories or your suggestions to the L.A.C.M.A. TV-Radio Committee, or to Medic Television Productions, Inc. We appreciate your cooperation.

SPEAKER CHARNOCK: Thank you very much. At this time we will ask Dr. Arlo Morrison to present to this House your new officers.

DR. ARLO MORRISON: Mr. Speaker, members of the House: I think you have seen this man around for a good many years, I think you all know what a very fine fellow he is. I think I made my sentiments about this clear, Sidney, so I'd like to reintroduce my old friend Sidney Shipman. (Applause.)

PRESIDENT SHIPMAN: Thank you very much, Dr. Morrison. I am of course very mindful of the honor which you have done me. It has been a great pleasure to have served you this past year. It seems to me it has been a year of real accomplishment on the part of the California Medical Association. I want to thank Dr. Morrison, who has been extremely generous in his advice and his help. I'd like to thank the Council and the full time staff. The staff has done a grand job. It goes without saying that I will do the very best I can this coming year.

DR. MORRISON: And next is a gentleman on my right, whom I have had the pleasure of knowing and working with very closely for many years. You have seen him in action before this body for a total of nine years. I don't think that there is anything that I can add to the high caliber of his past, nor to increase your esteem for him other than to state the high caliber of the manner in which he has handled his office—Don Charnock. (Applause.)

DR. MORRISON: And on my left we have the new Speaker of your House. I happen to know a great deal of the work that Jim has done because in these offices you have to attend to keep in touch with everything that is going on and it is a very difficult job. I think the past presidents will tell you sometimes it is hard to know how both your right and left hand are doing, but I know of Jim's background, the work he has done, and I feel he will do a fine job for us here. Jim Doyle. (Applause)

DR. MORRISON: Last but not least, our new Vice-Speaker, Paul Foster. As you know he is a past president of the Los Angeles County Medical Association. All his qualifications were given this morning. Paul Foster. (Applause.)

SPEAKER CHARNOCK: Thank you, Dr. Morrison.

At this time we will ask Dr. Green to perform a little task.

DR. GREEN: Mr. Speaker, members of the House: It is indeed a pleasure for me to do this little job for our President Arlo. I don't think in the history of the Association it has ever occurred before, with one exception, where a fifteen-year man introduced his captain to the ten-year man, and as past president I don't think that has occurred before. Another unique thing happens, I am a lieutenant in the United States Medical Reserve, of course, or was, and I am now up right in the middle between my own captains. It is usually the other way about, the captain distributes the honors, but I have the honor to do it this time for a senior officer.

It seems also something worth mentioning that on this little plaque which we will give to him in recognition of his valuable service to us which was done willingly, done with every bit of dynamite in him; nothing was left out as far as he was concerned that he could do, but this should be inscribed, "To Arlo A. Morrison, M.D., and Mrs. Morrison." Arlo, we give you this as a token of our appreciation and it has absolutely no intrinsic value.

DR. MORRISON: It is true that the reward is not very valuable perhaps, but the thought behind it is something that money could not purchase. As I have said before, it is a great pleasure as a small town boy to serve you. It is a terrific honor for us out in the country to be recognized once in a while and we like to try to reciprocate by doing a somewhat worthwhile job.

This is something I can put on my wall and I will treasure it over the years, but there was something else that you did this morning that makes me feel also that these two years are worth while. I have served for three years on the Board of California Physicians' Service and I think most of you remember that not too long ago that was a certain kiss of death. I fully expected to see competition from the floor and was quite surprised when it didn't come. To me that is a very great compliment for these past two years of service, but one thing since I am on the Board of Trustees, I think I would like to say. That is to refer you to my remarks of this House of Delegates, how I feel about indemnity insurance, and whether or not they should be purchased. I think they should be.

SPEAKER CHARNOCK: Thank you, Dr. Morrison. At this time we will require a motion to approve the minutes that the committee will edit. It takes approval of the motion that they be edited.

. . . A motion to approve the minutes that the committee will edit was made and seconded.

. . . The motion was put to a vote, and carried.

SPEAKER CHARNOCK: Dr. Lum.

DR. LUM: Mr. Speaker, I'd like to make a few announcements. I have been asked to announce that C.P.S. Trustees will meet for organization purposes in Room 7002 immediately after adjournment.

Fifteen minutes later the Council will meet in the California Room. The Council will prepare a tape recording of the poliomyelitis vaccine situation. All those of you who are interested may obtain this statement in Room A, the C.M.A. Room, in about an hour and a half. A copy of this statement will be sent to every town and county medical society.

SPEAKER CHARNOCK: Thank you, Dr. Lum. Any further business to come before this House?

One cannot relinquish the gavel of this House, after nine years of service, without a feeling of nostalgia. My thoughts go first to Dr. Lewis A. Alesen, under whom I served for six years. He is a great example to follow, and a wonderful teacher. My thanks go also to Henry Randel and Wilbur Bailey, who eased the load while they were vice-speakers. You have been a grand group of folks to work for. It has been a privilege to serve you.

If there is no further business, we stand adjourned.

. . . The meeting was adjourned at 4:30 p.m.

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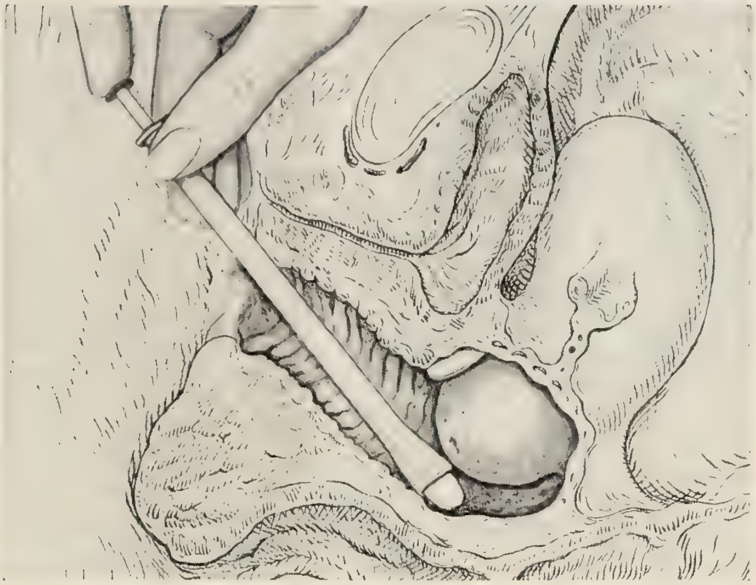

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Judge Sets the Record Straight

The following is a copy of transcript of the court's remarks in a recent malpractice suit, in which the court granted the defendant doctors motion for a new suit.

This case is similar to many others we have defended wherein there was no actual medical merit to the allegations of malpractice; but where the plaintiff's attorney hoped to get the case to a jury on a legal technicality or force a nuisance settlement. However in adhering to our policy we elected to defend and the court's remarks speaks for itself.

In this case the plaintiff attorney demanded $8,500.00 for settlement but we refused to make any offer of settlement, and elected to defend. Shortly before trial, and our refusal to compromise at any cost, the attorney attempted to withdraw from the case and substituted the plaintiff as attorney in pro per. The court insisted the attorney try the case and the results are contained in the transcript of the court's remarks.

This is the first case in which the court has expressed itself in granting a nonsuit. I thought the members of your society would be interested as this case is a sample of what price malpractice.

Sincerely,
Thomas Hadfield,
Vice-President, Malpractice Division

IN THE SUPERIOR COURT OF
STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF . . .
Transcript of Remarks of the Court
January 5, 1955

Plaintiff's Case

The Plaintiff

Mr. Blank: Your Honor, I intended, prior to starting, to have the record show that I had requested a continuance on behalf of Mrs. Doe, at her request, yesterday, to which Mr. Doe would not stipulate.

The Court: I don't want to go very much in to those particular matters because I have very decided opinions in respect to them, but I also want to make a supplemental statement in connection with the matter: The court is open for the determination of litigation under familiar and well-established rules; the complaint in this case was filed by a single lawyer,—

Mr. Blank: That is correct, your Honor.

The Court: And the action was set for trial by a single lawyer, and so far as I knew there was no dispute between the client and counsel in the matter: and as late as the closing ten days of last month the court is confronted with this situation. Every lawyer that is here is an officer of the court; I presume that the plaintiff, before you filed her complaint, told you all the facts of which she was apprised and that you questioned her in respect to

(Continued on Page 58)

"Depression and frustration are a daily experience in this man's life . . ."

"A single 'Dexamyl' Spansule supports his mood, gives him perspective . . ."

patient: A.W., a retired school teacher. "Depression and frustration are a daily experience in this man's life. Married for over forty years, he has had more marital unhappiness than any husband I have known.

"For years I have attempted to bolster his spirits and to enrich his interest in living by sympathetic counsel, psychic suggestion and even philosophic reflection. At times all of these have failed . . . when combat and friction enter by the door, philosophy and decorum fly out by the window."

treatment and response: "I have found 'Dexamyl' to be the answer to this tormented individual's problem. Ordinary sedatives would only depress him . . . he often needed something which would soften the bitterness of the moment, and also lift his mood to make life worth the effort of living. A single 'Dexamyl' *Spansule* No. 2, taken on arising, supports his mood, gives him perspective . . ."

(This photograph was taken during the patient's interview with his physician, a general practitioner. The case report is in the physician's words.)

Dexamyl* Spansule† No. 1 and No. 2

to provide day-long relief from
mental and emotional distress—with just one oral dose

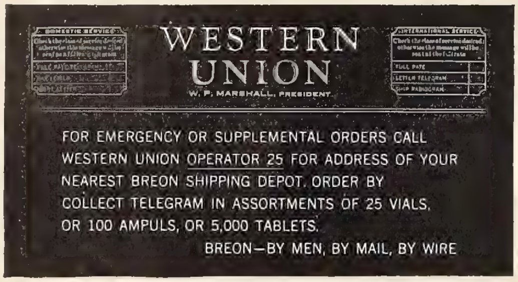
*T.M. Reg. U.S. Pat. Off.
†T.M. Reg. U.S. Pat. Off. for S.K.F.'s brand of sustained release capsules.
Patent Applied For.

Judge Sets the Record Straight

(Continued from Page 54)

all of the facts of the transaction. She has just been on the stand, and if there were some further facts that she had forgotten, or something of that kind, it would be your duty to stimulate her memory and point it out to the court. How the filing of a complaint by a lawyer is an indication of his conviction—perhaps I used too strong a word, "conviction," or his belief that the facts warrant the bringing of an action. Actions are determined upon evidence and not on the peculiar conceptions of litigants as to what constitutes a cause of action. *This is an action that is technically termed a malpractice case; there would have to be something produced that would tend to establish malpractice;* so far as I follow the allegations of the complaint, the sole matter upon which the cause of action is attempted to be predicated was the failure to call in an orthopedic specialist. Running all throughout medicine, every branch of it, are men that elect to become or call themselves specialists, but certainly the license to practice medicine in the State of California entitles the licensee to practice every branch of medicine, and it is only when conditions exist that are so grave as to indicate to the practitioner that the case is beyond his knowledge, scope and ability to treat that he may seek the aid of a specialist; the mere fact that the doctor did not call someone is

(Continued on Page 64)



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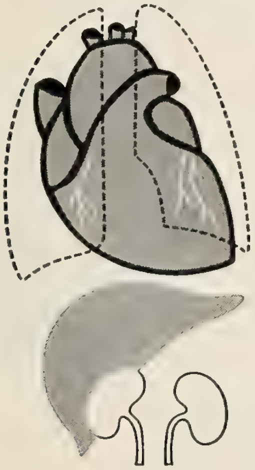

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Judge Sets the Record Straight

(Continued from Page 58)

no evidence of malpractice. Long before they ever heard of orthopedic surgery in the State of California or the United States there were doctors setting fractures and broken bones, but I am awaiting the production of some evidence that would tend in some degree to establish the cause of action attempted to be pleaded. . . . Of course you understand there are proper ways of doing things but I do not expect them to be pursued in connection with this matter. This is a malpractice case, and the question of whether there is malpractice is that there was in the treatment something done that was wrong or bad—mal means bad—and in the doing of that particular thing whether something was done by a physician practicing in this field which was wrong and was productive of the particular injury the plaintiff complains of; so ask any question you want to, because I don't think it is going to affect the result of this case so far as is foreseeable. . . . *I am about to grant the motion for a nonsuit because this action is based on airy nothingness—I do not blame the lady so much as I blame you.* You had an opportunity to appraise her case, you filed a complaint, there wasn't a thing in connection with this matter that warranted the bringing of the action except a desire, as so frequently happens to subject

(Continued on Page 74)

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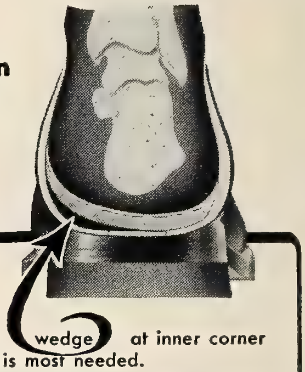

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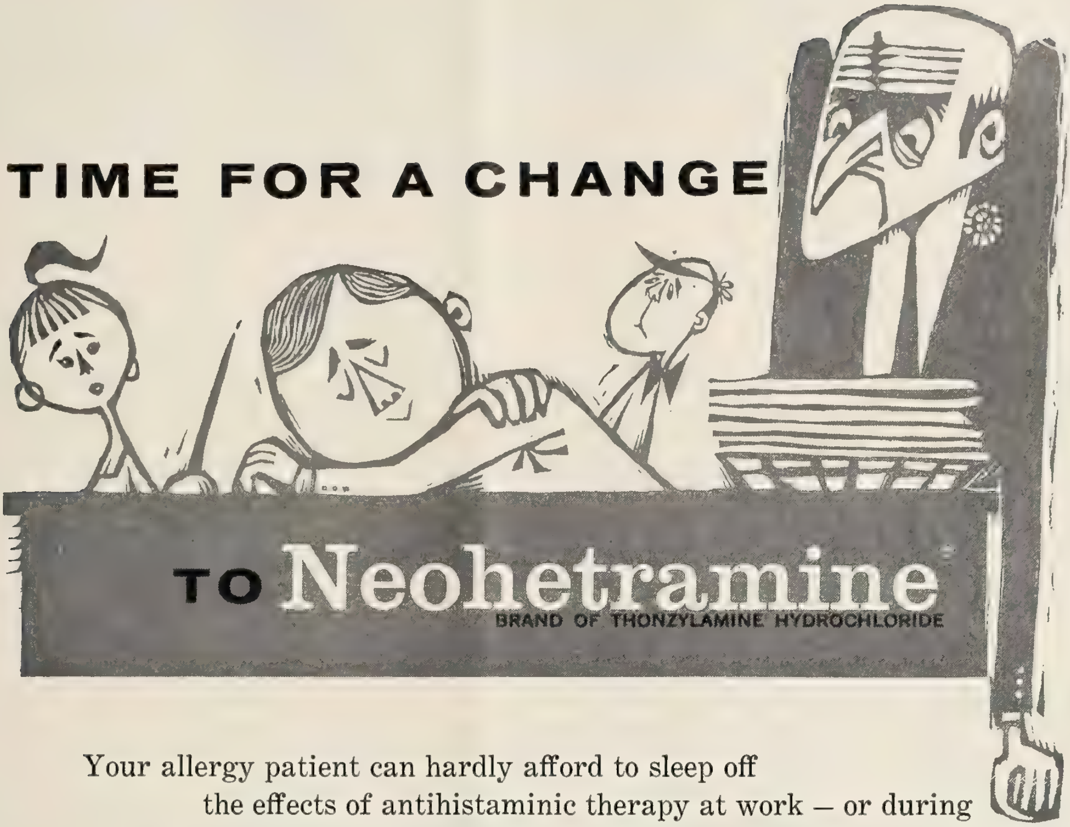

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Neohetramine is virtually free from sedation.

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Neohetramine is particularly useful in pediatric practice because of its markedly lower incidence of side reactions.

Dosage: Initiate with 50 mg. tablets or syrup, two to four times daily for adults, 25 mg. two to four times daily for children, and increase according to individual response.

Supplied: *Tablets* — 25 mg., 50 mg., and 100 mg. *Syrup* — 25 mg. per teaspoonful (4 cc.) *For topical application:* Cream 2% in one ounce tubes.

Literature, reprints and clinical supplies on request.

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NEPERA CHEMICAL CO., INC. *Pharmaceutical Manufacturers, Nepera Park, Yonkers 2, N. Y.*

American Medical Association Committee Recommends Aspirin Box Warning

All packages containing aspirin or other salicylate compounds should bear a clear warning, "keep out of the reach of children," according to the Committee on Toxicology of the American Medical Association.

Pointing out that oil of wintergreen and aspirin are forms of salicylates most often involved in childhood poisonings, a report adopted by the committee also recommended:

That the label should state "Consult your physician on dosage for children under three years of age."

That individual pills be wrapped in metal or plastic foil that cannot be easily removed by children, or that the container have a top which closes automatically.

That the number of tablets in each container of children's aspirin should be limited.

The committee's report, published in a recent issue of the *American Medical Association Journal,* was originated by the committee on accident prevention of the American Academy of Pediatrics. A similar report was adopted at a recent meeting of representatives of industry, medicine, and pharmacy called by the federal Food and Drug Administration.

Of 113 deaths in the United States known to have been caused by salicylate compounds in 1952, 86 occurred in children under five years of age. Forty-one of these were caused by aspirin, the report said.

"The frequency with which aspirin is involved in childhood poisoning calls for preventive measures," it said.

Families with small children are urged to use caution in handling salicylate compounds, particularly flavored aspirin.

Secretary of the Committee on Toxicology is Bernard E. Conley, M.Sc., Chicago.

Members of the committee are Justus C. Ward, M.Sc., Washington, D. C.; Jerome Trichter, New York, and Drs. Torald Sollman, chairman, Cleveland; Jay M. Arena, Durham, N. C.; Harvey B. Haag, Richmond, Va.; Irvin Kerlan and Arnold J. Lehman, Washington, D. C., and Edward Press, New York.

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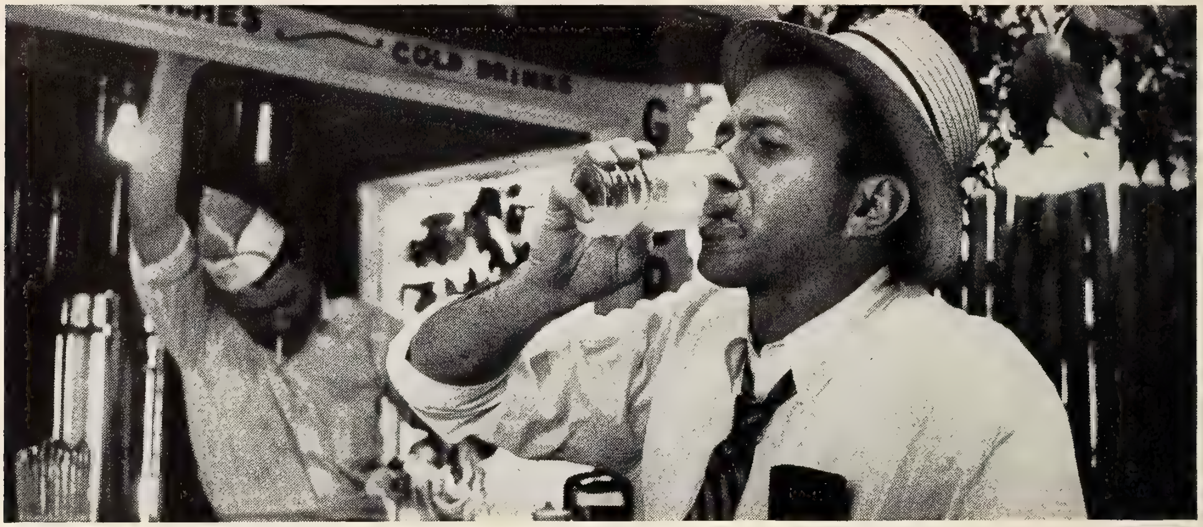

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MAJOR ADVANTAGES: Has pronounced antibacterial action. Detoxifies and adsorbs intestinal irritants. Soothes the mucosa. Tasty chocolate-mint flavor.

Adult dosage: 1½ to 2 tbsp. six times a day. *Children and infants* in proportion.

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Because of

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The combination of Rauwiloid (alseroxylon) with more potent hypotensive agents, such as Veriloid (alkavervir) and hexamethonium, each in single tablet form, simplifies and makes more effective the treatment of advanced, severe forms of hypertension.

SIMPLER . . . because the physician need prescribe only one medication and the patient need not cope with complicated dosage schedules. The flat dose-response curve of the contained Rauwiloid permits dosage to be governed solely by the response to the more potent hypotensive agent in the combination.

MORE EFFECTIVE . . . because of the synergistic influence of Rauwiloid on the potent hypotensive agents, thus permitting greater efficacy from smaller dosage. Side actions of these potent hypotensive drugs are notably reduced. These combinations are virtually free from allergic toxicity.

RAUWILOID® + VERILOID®

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Indicated in rapidly progressing, otherwise intractable hypertension. Each tablet contains 1 mg. Rauwiloid and 250 mg. hexamethonium chloride dihydrate.

Initial dosage, one-half tablet q.i.d. Available in bottles of 100 tablets.

Riker LABORATORIES, INC., LOS ANGELES, CALIF.

Judge Sets the Record Straight

(Continued from Page 64)

people to lawsuits, and perhaps to endeavor to get some sort of a compromise; she is not learned in the law, but you are supposed to be, *I have never seen a more dismal failure to have the semblance of a cause of action and to prove it.* Now you filed this complaint in 1954, and you set it for trial, you were in the case until well into (month)—and your position is not commendable—when you retire under the conviction, which you should have had the very first day, that there wasn't any merit to the case. I have no doubt but what the lady suffered, I have no doubt but what her hand is injured, but these injuries occur all through life; people lose limbs and legs and they suffer pain where they have been severed; now do you expect a lady eighty-one years of age is going to recuperate in the same manner that a football player from Stanford or California who gets a broken nose will? If she was dissatisfied with either of her doctors there were plenty of orthopedists available to her—in the State of California there are many of them; I think one of the best ones in the state is in San Francisco, he treated me when I received an accident.

—From *The Bulletin,* San Joaquin County Medical Society, July 1955.

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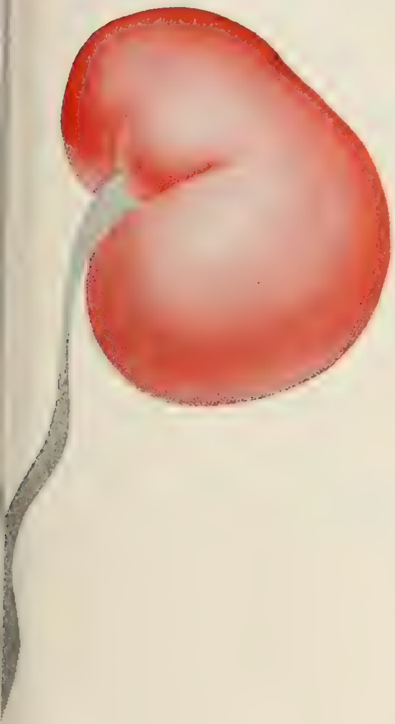

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CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

References (1) Jones, C. P.; Carter, B.; Thomas, W. L., & Creadick, R. N.: *Obst. & Gynec.* **5**:365, 1955. (2) Balch, H. H.: Mil. Surgeon **115**:419, 1954. (3) Altemeier, W. A.; Culbertson, W. R.; Sherman, R.; Cole, W., & Elstun, W.: *J.A.M.A.* **157**:305, 1955. (4) Kutscher, A. H.; Sequin, L.; Lewis, S.; Firo, J. D.; Zegarelli, E. V.; Rankow, R., & Segall, R.: *Antibiotics & Chemotherapy* **4**:1023, 1954. (5) Clapper, W. E.; Wood, D. C., & Burdette, R. I.: *Antibiotics & Chemotherapy* **4**:978, 1954. (6) Sanford, J. P.; Favour, C. B.; Harrison, J. H., & Mao, F. H.: *New England J. Med.* **251**:810, 1954. (7) Sanford, J. P.; Favour, C. B., & Mao, F. H.: *J. Lab. & Clin. Med.* **45**:540, 1955. (8) Felshin, G.: *J. Am. M. Women's A.* **10**:51, 1955.

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Ninth Annual Health Insurance Survey

The Macs and the Joes and the Marys and Helens who make up the American public apparently have taken to heart the old American Medical Association campaign motto, "The Voluntary Way is the American Way."

For evidence all one has to do is analyze the recent ninth annual survey of health insurance in America, as of December 31, 1954.

This survey, made by the Health Insurance Council, New York, shows that nearly two out of every three men, women and children in the United States now are protected by voluntary health insurance. This shows striking progress in one year. Council Chairman John H. Miller recently stated that "some 104 million persons now have voluntary health insurance against hospital expenses. About 89 million people have surgical expense protection, and about 50 million have regular medical expense protection."

The total of benefit payments on health insurance claims reported by the survey for 1954 exceeded $2.7 billion, a gain of 11 per cent over the previous year. Of the total amount, more than half went to help meet the hospitalization expenses of beneficiaries, and more than $730 million went for surgery and medical care. Benefit payments to policyholders by insurance companies for loss of income due to disability totaled in excess of half a billion dollars last year, the survey reports.

Of the aggregate benefit payments in 1954 by all forms of voluntary health insurance, 56 per cent of the total came from the insurance companies. The dollar amount paid by the companies was over $1.5 billion, including loss-of-income benefits.

Blue Cross and Blue Shield type plans paid more than $1 billion or 39 per cent of the total. Various independent plans accounted for the remaining 5 per cent of the total.

On December 31, 1954, a total of 101,493,000 Americans had hospital expense protection. This represents an increase of 4.3 per cent during that year, a rate of increase which is over two and a half times the rate of population growth in the same period. Since the beginning of 1941, the number of persons with hospital expense protection has multiplied nearly eight and a half times.

Nearly 86 million persons had surgical expense protection by the end of 1954. This represents an increase of 6.1 per cent over the previous year. Ordinarily, people with surgical coverage also have hospitalization protection. So, up to 85 per cent of

(Continued on Page 82)

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Message. Your wife called - she and children just got back from the country. Said Calmitol was a blessing for poison ivy and insect bites. It relieved irritating itching almost immediately.

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support recovery, speed convalescence

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BRAND OF TETRACYCLINE

the leading broad-spectrum antibiotic, discovered by **Pfizer**

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For patients with infections, "one must aim at maintaining the normal daily nutritional requirements, replacing previous depletions and current losses, and supplying whatever increased requirements may be related to the nature of the illness."[1] This is the concept of "treating the 'whole' patient."[2]

Tetracyn SF has antibiotic effectiveness equal to that of Tetracyn® alone[3] and, in the hands of thousands of physicians, has shown

Equivalent Blood Levels[3]
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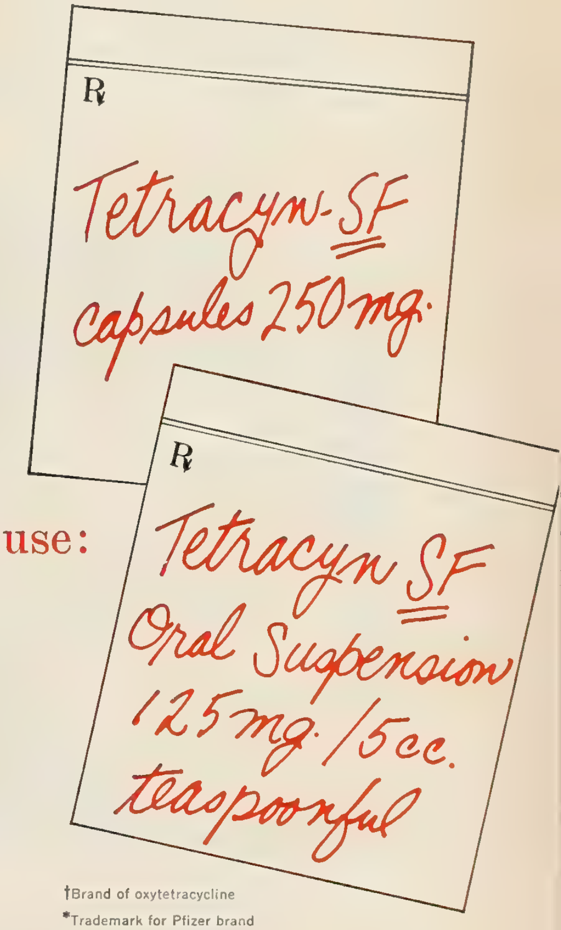

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1. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, Prepared in Collaboration with the Committee on Therapeutic Nutrition, Food and Nutrition Board, National Research Council, Washington, D. C., 1952. 2. Martí-Ibáñez, F.: Antibiotic Med. *1*:247 (May) 1955. 3. Dumas, K. J.; Carlozzi, M., and Wright, W. A.: Antibiotic Med. *1*:296 (May) 1955. 4. Milberg, M. B., and Michael, M., Jr.: Ann. New York Acad. Sc., In press. 5. Prigot, A.: Ibid.

†Brand of oxytetracycline

*Trademark for Pfizer brand of antibiotics with vitamins.

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Division, Chas. Pfizer & Co., Inc.

Ninth Annual Health Insurance Survey

(Continued from Page 78)

those with hospital expense protection also had surgical coverage—up from a figure of 83 per cent one year earlier. Since 1941, the number of persons with surgical insurance has multiplied about 16 times.

Regular medical expense coverage increased by more than four million persons, or nearly 11 per cent during 1954, to give a total of more than 47 million who have this protection against the cost of nonsurgical medical care by their doctors. People with medical expense protection usually have hospital and surgical protection as well.

A total of nearly 39 million workers had protection at the close of 1954 against loss of income due to disability. This figure represents about 60 per cent of the total civilian labor force in the nation at the time.

The newest form of voluntary health insurance—major medical expense insurance—is shown by the survey to protect more than 2.2 million persons against the costs of catastrophic illness. The figure represents a gain of 83 per cent during last year.

—*A.M.A. Secretary's Letter*

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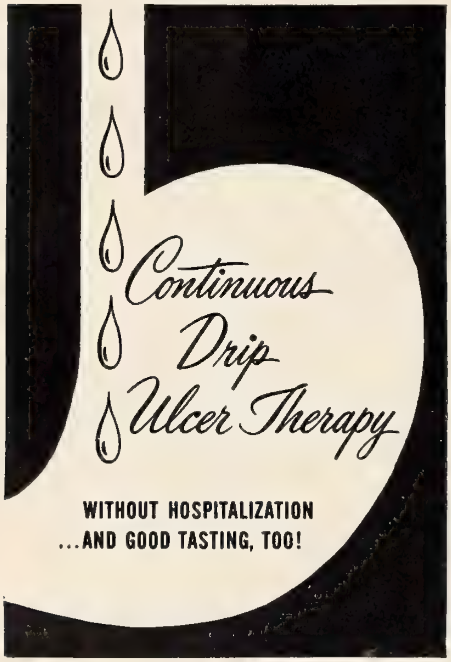

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Nulacin

A recent clinical study* of 46 ambulatory nonhospital patients treated with Nulacin† and followed up to 15 months describes the value of ambulatory continuous drip therapy by this method. Total relief of symptoms was afforded to 44 of 46 patients with duodenal ulcer, gastric ulcer and hypertrophic gastritis.

The delicately flavored tablets dissolve slowly in the mouth (not to be chewed or swallowed). They are not noticeable and do not interfere with speech.

Nulacin tablets are supplied in tubes of 25 at all pharmacies. Physicians are invited to send for reprints and clinical sample.

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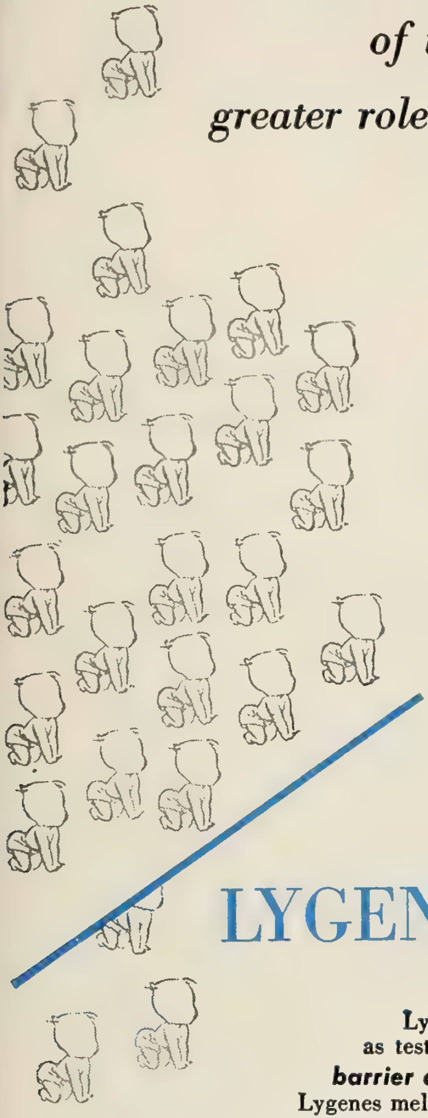
*Steigmann, F., and Goldberg, E.: Ambulatory Continuous Drip Method in the Treatment of Peptic Ulcer, Am. J. Digest. Dis. *22*:67 (Mar.) 1955.

†Mg trisilicate 3.5 gr.; Ca carbonate 2.0 gr.; Mg oxide 2.0 gr.; Mg carbonate 0.5 gr.

"In control of conception *acceptability* *of the prescription probably plays a greater role in use and therefore effectiveness than in most fields of medicine".*

—**New and Nonofficial Remedies, 1954.**



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After 12 years' study of various simple contraceptive methods in 573 parous women, Eastman and Seibels[1] report an average pregnancy rate of 4.5 for all technics evaluated. Among these methods, the highest effectiveness rate was achieved with suppositories.

With Lygenes Vaginal Suppositories (used regularly by 197 women of the above group over 33 months), the pre-clinic pregnancy rate of 95 was reduced to 2.4 . . . an effectiveness rate of 97.5%.

LYGENES® Vaginal Suppositories

spermicidal action

Lygenes kill sperm within 10 minutes of contact, as tested by the Brown and Gamble method.[2]

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Lygenes melt at body temperature within minutes after insertion and form a tenacious protective coating over the cervix and vaginal membranes.

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1. J.A.M.A. 139:16 (Jan.1) 1949
2. Human Fertil. 6:1 (Feb.) 1941

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Philadelphia Physicians Report New Heart Operation

What may be the first successful operation for removal of a myocardial aneurysm, a heart defect, was reported recently by Drs. William Likoff and Charles P. Bailey, Philadelphia.

Although long survival with myocardial aneurysm is possible, it is "extreme unlikely," the doctors said. However, life-prolonging surgery may now be possible for this type of aneurysm.

Such a defect was successfully removed from a 56-year-old man April 15, 1954, at Hahnemann Hospital, Philadelphia. The case was described in a recent issue of the *Journal of the American Medical Association.*

Myocardial aneurysms may result when a coronary blood vessel is blocked by a blood clot. The cells in the area around the clot die and scar tissue is formed. The aneurysm itself is like a blister, bulging out from the myocardium. The walls of the sac are thin and sometimes consist mostly of scar tissue.

The operation involved the removal of the sac from the left ventricle of the heart.

The patient recovered with little difficulty. After several weeks, he was able to walk and climb stairs without shortness of breath, pain, or galloping heart beat—all of which he had suffered before surgery.

Although no measures were taken during surgery to change the underlying coronary disease, the effects of the disease were beneficially altered by the operation, the doctors said.

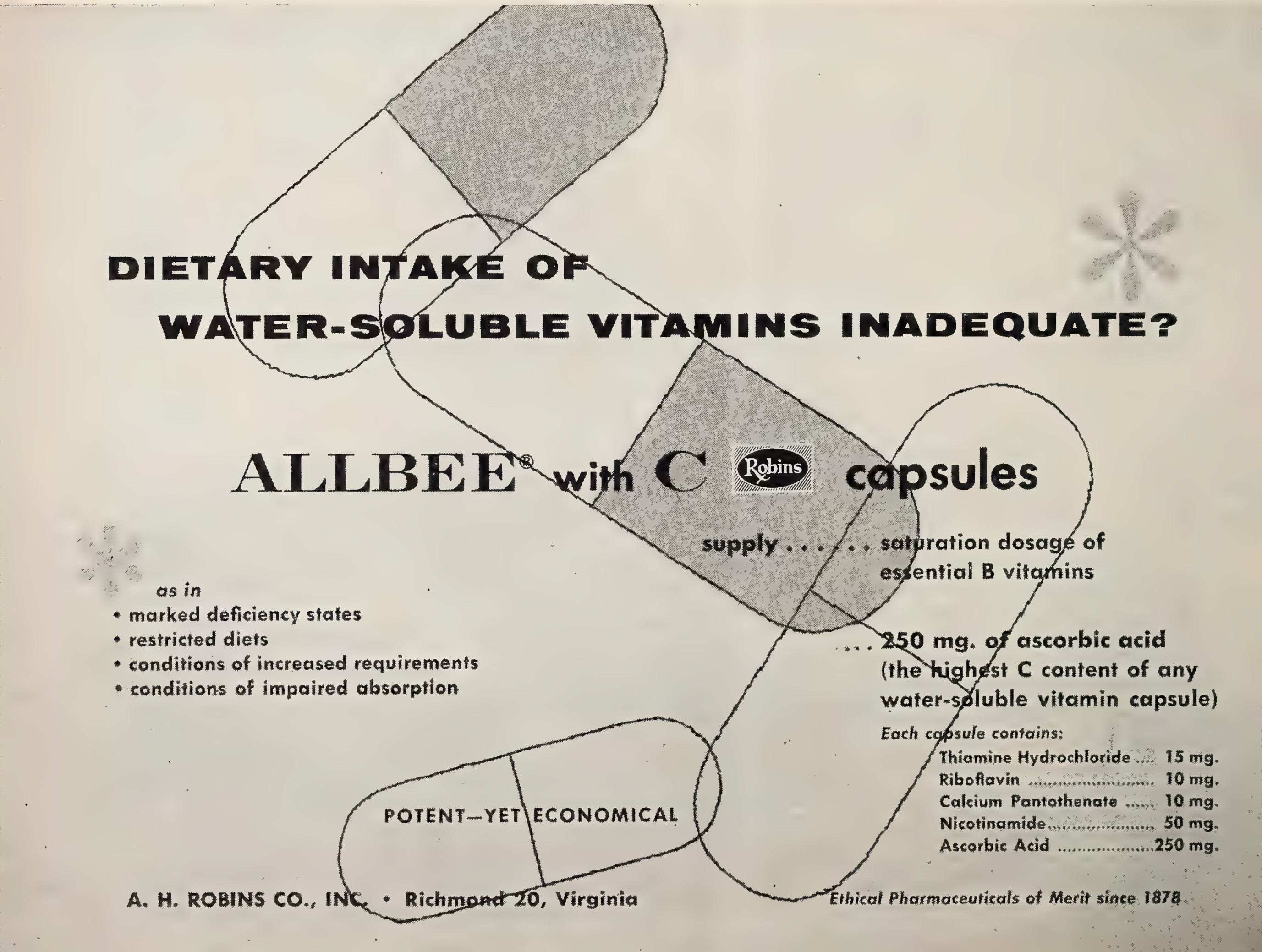
An aneurysm of the heart is not merely an "interesting anatomic anomaly," but a serious complication of a serious coronary disease, they said.

Public Health Service Officers Assigned To All Salk Vaccine Plants

The Public Health Service will have one of its officers assigned to each of the six plants producing Salk vaccine. They will assist in production and testing procedures, help to coordinate the industry's research, and facilitate a more rapid exchange of information between the pharmaceutical industry and the federal government.

At the same time, Public Health Service initiated a research plan, described as an expedient, to improve production and testing of poliomyelitis vaccine. Universities and other nonfederal institutions will cooperate. Among subjects to be investigated are the inclusion of other strains of virus in vaccine, improved potency tests, the improvement of monkey safety tests, the development of concentration methods of use in both testing and production processes, and studies on standardization of tissue culture susceptibility to the polio virus.

—A.M.A. Washington Letter



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REFERENCE: 1. Robinson, R. C. V., *J.A.M.A.* 157:1300, April 9, 1955.

Genetics Offer Means of Changing Man

Man has within his grasp more power to change future generations through breeding than he has wisdom to direct changes for the best results.

An editorial in a recent issue of the *Journal of the American Medical Association* said genetics, the science of heredity, offers the possibility of changing the race. However, no means for improvement of human stock has yet been devised.

There are many difficulties, resulting largely from the complicated behavior of genes, the biological factors which determine heredity.

For instance, it may be possible to control one gene, but it is hard to tell how it will be influenced by other genes. In other words, the effect of a gene may depend on "the company it keeps."

Another problem is the inability to predict long-term results of manipulating genes.

"Selective breeding," as used in cattle, has been suggested as a method of improvement, but this is not likely to gain wide acceptance because of the "violent emotional reactions such proposals automatically arouse."

"The widespread use of a 'perfect donor' through artificial insemination might lead to too great a uniformity in a world where diversity is still highly desirable," the editorial said.

In addition, such a donor might spread hidden bad traits through a large segment of the population before they could be detected. Inbreeding, as has been shown in the past by various royal families, brings hidden traits into the open. "If these are harmful, as they are more often than not, inbreeding will increase the number of persons afflicted," the editorial said.

The proportion of persons with mental and physical defects is increasing in modern civilization because advances in medical science make it possible for them to live longer, the editorial said.

None of the measures advocated to prevent degradation of human stock, such as sterilizing mental defectives, have "made more than a feeble impression on the problem as a whole."

While physical traits are more nearly determined by heredity, they are less influenced by environment than are mental traits. "Social traits or personality, although affected by heredity, are altered by environment with the greatest ease."

The editorial concluded, ". . . it is easier to define good environment than good heredity. So far, the power to change man genetically exceeds the wisdom needed to know in what direction genetic controls should be applied to achieve the best results."

Researchers Discover Two Diseases of Cats, Fish

A glandular infection which causes brook trout literally to writhe with pain, and hardening of the arteries in old cats has been discovered by researchers on the east and west coasts.

The trout infection may be even more widespread this year than last, according to staff members of laboratories in West Virginia and Washington. Their report, and one on cat arteriosclerosis by two California physicians, appeared in a recent issue of *Archives of Pathology*, published by the American Medical Association.

Outbreaks of infectious pancreatic necrosis—an ailment in which cells of the pancreas die—occurred in brook trout at three hatcheries in West Virginia in 1954.

Two groups of fingerling brook trout from unrelated parent stock and different hatcheries developed the disease in January, 1954, at the Leetown Fish and Wildlife Service Station. Outbreaks also occurred at Dorcas and Marlington, W. Va., in July, 1954.

Most characteristic symptom was "a very violent whirling and corkscrewing motion, which suggested that the affected fish were literally writhing with pain." The infection reached a peak from 10 to 12 days after the onset and subsided over a six-week period. Mortality rate in some groups reached 75 per cent.

The cause was thought to be a virus, possibly carried by water. Infected fish were placed in the upper section of a divided trough and uninfected fish in the lower section. Typical symptoms appeared in the new group in six days.

E. M. Wood, Ph.D., S. F. Snieszko, Ph.D., and W. T. Yasutake, B.A., of the Salmon Nutrition Laboratory, Cook, Wash., and the Leetown Microbiological Laboratory, Kearneysville, W. Va., made the report.

The study by the west coast physicians showed that hardening of the arteries, a disease of old age, follows a pattern in cats much like that among dogs, humans, and birds. However, deposits of fatty substances, usually found in the artery walls of humans, dogs and birds, play almost no part in the disease in cats.

"Naturally occurring arteriosclerosis is common in the cat, particularly in old age. However, it appears to be less severe than in other species at comparable ages," Drs. Stuart Lindsay and I. L. Chaikoff, University of California School of Medicine, said.

All 36 cats in the survey showed signs of the disease, but they were less pronounced in younger cats.

Possible causes of arteriosclerosis are nutritional factors, repeated injuries to the artery walls as a result of "wear and tear," and aging of the tissues.

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Dogs Sometimes Transmit Parasites To Humans

"Man's best friend," the dog, may sometimes—accidentally—be his health enemy, physicians said recently.

Occasionally a dog may transmit an infectious parasite to man, two physician consultants said in answer to a query from another physician in a recent issue of the *Journal of the American Medical Association.*

However, they said the few cases of infection from dog to man probably could be prevented by cleanliness, defleaing the dog, and other easy methods.

Some of the parasites of dogs which may infect man are fleas, ticks, tapeworms, and hookworms, one type of which causes a skin infection called "creeping eruption" in the southeastern United States. Dogs with mange may give their handlers a skin infection.

Sometimes dogs and men may have the same infection but in these cases it isn't the dogs' fault. It just happens that they are infected by the same parasites—which in turn came from fleas, pigs, or fish.

In fact, the physicians said, sometimes when dog infects man, the parasite of the dog came from the man in the first place.

Program Prepared to Make Military Medical Career Attractive

A special Defense Department task force has drawn up a five-point program designed to make military medicine more attractive as a career. Legislation required to implement parts of the report will be introduced later, after the changes have been approved by the Budget Bureau and cleared by all affected services and departments. The task force points out that in 1950 more than half the military physicians were members of the regular corps, but that now less than one-third of all officers and less than one-sixth of those in the three lowest grades are career doctors. In one 21-month period, the task force notes, 766 regular medical officers resigned, but only 364 signed up for a regular career, and most of these to take advantage of residencies or other educational incentives.

The task force makes these recommendations: (1) Increase voluntary procurement through educational assistance in exchange for active service. (2) Improve financial appeal through higher starting rank plus longevity credit and constructive service for medical education years. (3) Extend service contracts based on a bonus plan to keep men in service after completion of obligation under the regular draft. (4) Guarantee optional retirement after 20 years' service. (5) Improve military and professional environment so as to increase professional motivation and prestige.

Recommendations of the task force were reviewed at a Pentagon meeting attended by representatives of the American Medical Association and others.

—*A.M.A. Washington Letter*

Committee Appointed to Review Joint Commission on Accreditation of Hospitals

Dr. E. Vincent Askey, Speaker of the American Medical Association House of Delegates, has appointed a seven-man special committee to review the functions of the Joint Commission on Accreditation of Hospitals.

Letters of invitation to serve on the committee were sent to the following:

Drs. W. C. Stover, Booneville, Ind., chairman; John F. Burton, Oklahoma City; Gerald D. Dorman, New York; George F. Gsell, Wichita, Kan.; Eugene F. Hoffman, Los Angeles; T. C. Terrell, Fort Worth, Texas, and George A. Unfug, Pueblo, Colorado.

The committee was appointed as the outgrowth of the introduction of six resolutions in the House of Delegates at the A.M.A. session in Atlantic City last June, and Dr. Askey said that in appointing the group he tried to "give representation to the interested parties who introduced these resolutions."

Dr. Askey hopes that the committee will be able to submit some kind of a report to the House when it meets in Chicago next June.

The report of the Reference Committee on Medical Education and Hospitals, which was adopted by the House, said in part:

"Your Reference Committee recommends that the Speaker of the House of Delegates be requested to appoint a special committee to review the functions of the Joint Commission on Accreditation of Hospitals to consist of seven members, none of whom shall be members of the Council on Medical Education and Hospitals or of the Joint Commission on Accreditation of Hospitals. The special committee should be instructed to make an independent study or survey and report its findings and recommendations to the House at the next annual meeting. All physicians and hospitals are urged to pass on to this special committee any observations or suggestions concerning the functioning of the Joint Commission on Accreditation of Hospitals."

Low-Fat Diet May Prevent Coronary Disease Pain

A low-fat diet may be useful in helping to prevent angina pectoris, one of the most painful effects of coronary disease, two Philadelphia physicians said in a recent issue of the *Journal of the American Medical Association.*

Angina pectoris, a severe pain in the chest, which carries with it a feeling of suffocation and impending death, is usually brought on by effort or excitement.

Anginal pain following meals has been attributed to the increased heart work during digestion or to heart artery constriction resulting from a distended stomach. However, the two Philadelphia physicians suggested that the cause may be too much fat in the meal.

Fourteen patients with coronary disease at the Hospital of the University of Pennsylvania were given a fatty meal consisting of heavy cream, flavored with cocoa and synthetic sweetening.

Six patients had a total of 14 severe attacks of angina pectoris from three to five hours after eating. Two other patients developed relatively mild and short attacks about five hours after eating. The patients said the discomfort was identical to that of effort-produced angina.

Blood samples taken at intervals after the meal showed a steady rise in fat content, with the highest point reached about the time of the attack.

This slowly rising and prolonged fat concentration might explain why angina pectoris may occur in certain individuals after a certain meal of the day, the physicians said. It also might be partly responsible for angina decubitus, chest pain occurring when the patient is lying down, they said.

Other tests showed changes in heart rate and a temporary deficiency of blood in the myocardium during the attack. The physicians said that high fat concentrations, bringing about such a deficiency during the attack, could have a bad effect on the myocardium in persons whose circulation already is impaired by coronary disease.

This is another good reason for giving a low-fat diet to patients with angina pectoris, the physicians concluded.

Making the survey were Dr. Peter T. Kuo, Hospital of the University of Pennsylvania, and Dr. Claude R. Joyner, Jr., National Heart Institute of the National Institutes of Health.

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American Medical Association Opposes Compulsory Disability Insurance

Within 24 hours after the House Ways and Means Committee approved the social security proposals, including cash payments to the disabled under Title II, Dr. Gunnar Gundersen, chairman of the Board of Trustees, blasted the plan as it applies to the disabled.

A news release, quoting Dr. Gundersen, was given wide distribution. His 400-word statement was airmailed to more than 150 of the largest newspapers in every section of the country as well as to press associations and news magazines. It also was mailed to secretaries of state medical societies, officers of the A.M.A., and members of the Board of Trustees.

The release was clear in pointing out that the A.M.A. is strongly opposed to the compulsory disability "insurance" features of the proposed legislation. Dr. Gundersen termed the proposal to extend social security payments to the disabled "strictly a political maneuver to influence votes."

"If the American people are going to retain their right to spend their money as they wish, they must stand up now and vigorously fight these super-Santa Claus proposals born of politics," Dr. Gundersen said in the release, adding: "The proposals contained in this bill actually provide an illusory benefit at the cost of ever-increasing taxation and loss of personal freedom."

Continuing, Dr. Gundersen said:

"A move by the majority of the committee to railroad through the House without public hearings an amendment to the Social Security Act which would provide national compulsory disability insurance is an outrage.

"It is not easy to criticize national legislation which superficially appears to be a humanitarian effort to help disabled persons, and it takes courage for a politician to oppose it. Therefore, it is imperative that the American people take a strong stand against this proposal which, if adopted, will go far toward the nationalization of medicine.

"The levying of additional social security taxes by the federal government in order to distribute cash benefits to the permanently and totally disabled would inevitably be followed by federal control of the nation's physicians, who would be forced to carry out the regulations established by the government.

"It is incredible that Congress would consider legislation of such far-reaching implications without a full opportunity for public hearings. The fact is that only four states—New York, New Jersey, Rhode Island and California—have adopted similar legislation and most of the other states have considered and rejected it. In one state—Washington—where the people were given an opportunity

(Continued on Page 50)

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Thiamine HCl (B_1)	10 mg.
Sodium Pantothenate	10 mg.
Niacinamide	50 mg.
Riboflavin (B_2)	10 mg.
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Ascorbic Acid (C)	300 mg.
Vitamin B_{12}	15 micrograms
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FOLBESYN is also available in tablet form, ideal for supplementing the parenteral dose.

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The nutritional statements made in this advertisement have been reviewed and found consistent with current medical opinion by the Council on Foods and Nutrition of the American Medical Association.

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Unusual Disease Appears at Air Force Base

A disease which rarely appears except in epidemics of a certain liver infection has been found in 43 men at an Air Force base where there was no epidemic.

Major Robert L. Chancey and Lt. Leslie M. Zatz of the medical service at Lowry Air Force Base, Colorado, describe the outbreak of anicteric hepatitis in a recent issue of the *Journal of the American Medical Association.*

Hepatitis is an inflammation of the liver. The anicteric type occurring in the absence of epidemics of infectious hepatitis rarely has been reported. However, it deserves emphasis because of "its unusual nature" and the "possibility of chronic liver disease developing in unrecognized cases," the authors said.

In addition, because the disease may be a type of infectious hepatitis, persons with it should be removed temporarily from the roll of blood donors.

The ailment appeared in conjunction with upper respiratory infections, which were controlled by antibiotics within four to seven days. However, a majority of patients continued to have fatigue, pain, or loss of appetite. Forty-one complained of sharp or aching pain in the liver area.

Eleven patients showed abnormal liver function, while the remaining 32 were normal. All showed signs of inflammation of the liver. None developed jaundice.

Treatment for hepatitis consisted of rest and high-protein and high-caloric diets, with hospitalization varying from 18 to 155 days.

Cause of the outbreak is unknown. It could be one of several things, but no specific diagnostic tests have been developed, the physicians said.

Had the possibility of liver disease not been considered, these cases might easily have been misdiagnosed as unusual upper respiratory infections or as influenza, the authors said. Correct diagnosis is important because of the possibility of future complications.

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Pregnant Women Successfully Undergo Heart Surgery

A heart operation which now seems to be safe even during pregnancy shows promise in reducing maternal deaths and the need for therapeutic abortions and sterilization among women with a serious heart defect.

In fact, childbearing after this operation even may be good for some cardiac disease patients, because the hormones of pregnancy apparently have some protective effect against rheumatic heart activity.

This report was made in a recent issue of the *Journal of the American Medical Association* by Drs. Robert P. Glover, Thomas J. E. O'Neill and O. Henry Janton, all of Philadelphia, and Dr. Donald E. McDowell, now of Asuncion, Paraguay.

Heart disease complicates one to two per cent of all pregnancies and accounts for about 25 per cent of all maternal deaths, they said. While pregnancy does not seem to hasten or adversely affect rheumatic heart disease, it throws a heavier burden on the heart, which may mark the beginning of a steady deterioration.

One heart defect especially common among young women of child-bearing age is mitral stenosis, a narrowing of the opening between two chambers in the heart.

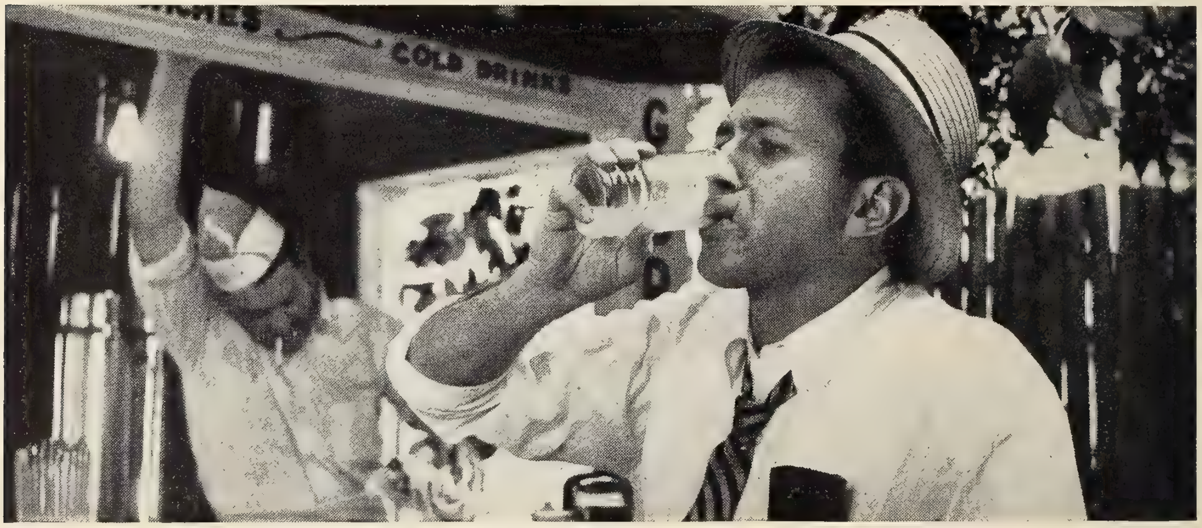
Mitral commissurotomy, an operation which reopens that passage, has been successfully performed by the Philadelphia physicians on five pregnant women and six patients who later became pregnant. Nine of them have had normal deliveries so far.

Since a large number of therapeutic abortions are performed because of mitral stenosis, the physicians said the need for such abortions also may be "greatly modified" by the success of the operation.

"There is now a more optimistic outlook for such patients in that many may continue their pregnancies while exposing themselves to minimal risk," they said. "Mitral commissurotomy also may offer new hope to the childless couple who have feared pregnancy because of rheumatic valvular disease in the wife."

Mitral stenosis not only has great medical significance but equal importance from the psychological, sociologic, and economic aspects, they said, because of its effect on home, family, and marriage. Therapeutic abortion and/or sterilization of the wife is not a satisfactory solution and may break up a marriage, they said.

Although the doctors had operated on only a few patients, they said it could be "definitely stated" that mitral commissurotomy during pregnancy is safe for both mother and child. It "offers added hope to women who have feared having children because of mitral stenosis" and "greater assurance" of safely continuing a pregnancy which might otherwise have been terminated.



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Two World Medical Groups Discussed

Since health is of importance to everyone in the world, international cooperation in health and medicine may smooth the way for cooperation in more controversial spheres, three physicians said recently.

Two organizations which work toward world health, understanding, and peace—the World Medical Association and the World Health Organization—are described in a recent issue of the *Journal of the American Medical Association.*

Drs. Harold S. Diehl, Minneapolis, Leonard W. Larson, Bismarck, N.D., and Franklin D. Murphy, Lawrence, Kan., said the two groups are "a team that is making one of the greatest contributions of our time to the improvement of mankind—a must for the prevention of the spread of communism.

An accompanying editorial pointed out the importance of the organizations as a means of exchanging information.

"Each country, of course, has its own problems, but there are many aspects of the control of disease and the providing of medical care that should be viewed internationally," the editorial said. "Some-

(Continued on Page 54)

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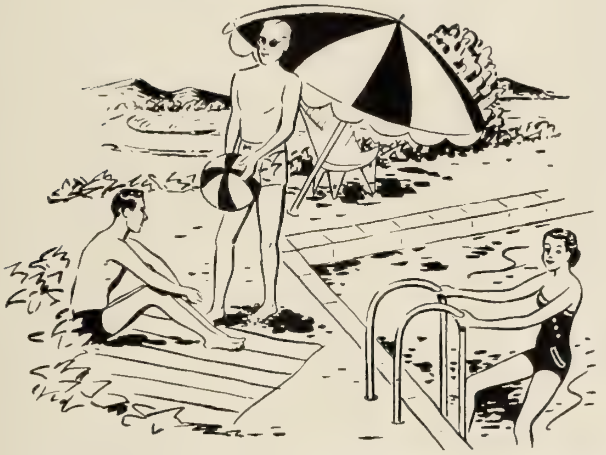

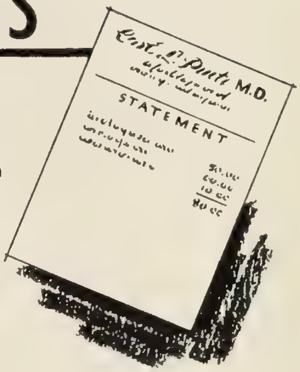

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Atomic Test Program Gives Maximum Public Safety

Safety measures at the Nevada atomic test site have reduced hazards to the public to a minimum, Gordon M. Dunning of the Atomic Energy Commission's Division of Biology and Medicine, Washington, said recently.

After five major tests no one has incurred radiation exposure off the site that may be considered "anywhere near hazardous," Dunning said in a recent issue of the *Journal of the American Medical Association.*

There have been no known cases of serious eye damage from light effects, nor any reported injury to persons from shock waves.

Carrying out an extenisve program of warnings before tests and checks after tests are 100 full-time employees of the Atomic Energy Commission. In addition, many persons participate on a part-time basis throughout the United States.

The basic consideration for the public's safety was shown in the selection of the test site. It covers an area of 600 square miles, with an adjacent U.S. Air Force gunnery range of 4,000 square miles. These are surrounded by "wide expanses of sparsely populated land."

Preceding a test, a "warning circle" is set up and all aircraft are warned by the Civil Aeronautics Administration to remain out of the circle. Roadblocks are established on major highways in the area to alert motorists to the approaching blast and flash of light.

The AEC and U.S. Public Health Service have cooperated in establishing a liaison program with residents in surrounding areas. Liaison men live in each of twelve zones. Their duties include becoming so much a part of the neighborhood that residents would respect their decisions and seek their advice if needed. The men also monitor radioactivity-measuring equipment following the tests.

After each blast, monitoring equipment at the site, in nearby communities, and on mobile equipment measures the radioactive fall-out.

Airplanes track the clouds and plot the fall-out pattern on the ground. Ninety U. S. Weather Bureau stations and ten AEC installations collect fall-out data throughout the United States.

Contamination of water and air in the surrounding area was found to be relatively small after each blast, Dunning said.

There have been no reported cases of people receiving radiation burns off the site. In 1952 some cows which were 15 to 20 miles from "ground zero" received some burns, as did some horses in 1953.

Damage from shock waves in nearby communities has totaled $44,300 from several blasts. If it appears that there may be slight damage from shock waves, because of weather conditions, residents are warned to open windows and doors in their homes to help equalize the pressure.

MEDICAMENTA VERA

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American Medical Association Opposes Compulsory Disability Insurance

(Continued from Page 34)

through referendum to pass on it, a bill to establish compulsory state sickness insurance was defeated three to one.

"This federal proposal includes an immediate 25 per cent boost in social security taxes and unpredictable future tax increases.

"A program already exists whereby the federal government and the states jointly participate in providing financial assistance to the permanently and totally disabled who are in need of it.

"In addition, over 40 million persons are covered by private insurance companies against loss of income because of disability.

"This legislation is another example of unnecessary federal invasion of a rapidly developing area of private enterprise."

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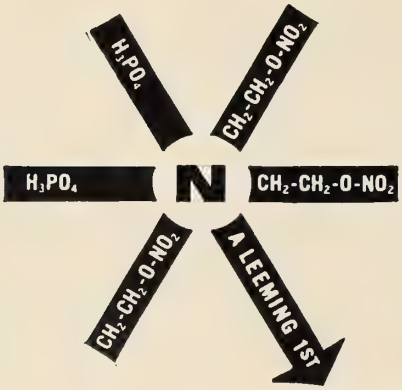

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Two World Medical Groups Discussed

(Continued from Page 42)

times the view prevailing in one country is helpful when disseminated elsewhere. . . . Such value is readily apparent to everyone.

"Not so apparent at times is the protection a country receives when its health professions can benefit from mistakes made elsewhere."

Free exchange of information not only can show a country how to control malaria and other diseases, but can point to the "inequities of some governmentally inspired schemes that may not bring health, happiness and freedom but instead shackles and misery," the editorial said.

The World Medical Association, a professional organization of physicians, developed an International Code of Medical Ethics, sponsored the first World Congress on Medical Education, and now is working in the field of world occupational health.

The World Health Organization, with 84 member nations, is within the general orbit of the United Nations, but administered separately. It has compiled and distributed information on many phases of health and disease; led in the control of malaria and yaws, and assisted in training thousands of persons from countries without health training facilities.

The World Health Organization is valuable to the U.S. "both as an arm of foreign policy of our government and as a contributor to our domestic health," the article said.

Both organizations have worked together, collaborating on projects and exchanging representation. "It is essential that these organizations continue to cooperate in order to assure the greatest possible competence," the article said.

It said the individual physician can help "in developing understanding within his own community of the importance of the development of public health services in underdeveloped areas of the world as a barrier to the spread of communism."

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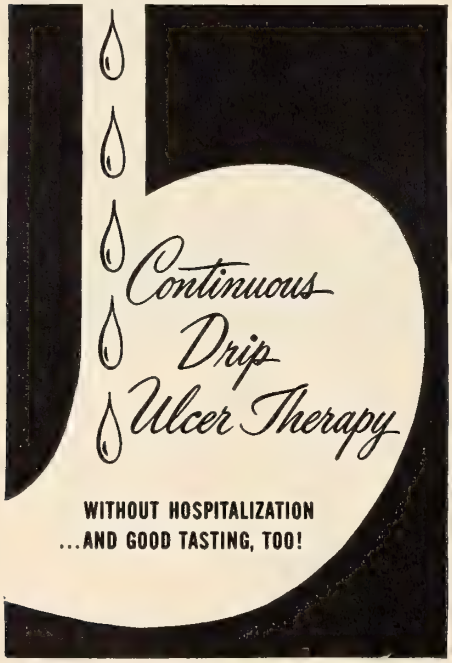

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*Steigmann, F., and Goldberg, E.: Ambulatory Continuous Drip Method in the Treatment of Peptic Ulcer, Am. J. Digest. Dis. 22:67 (Mar.) 1955.

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(1) Payne, R. W.; Shetlar, M. R.; Farr, C. H.; Hellbaum, A. A., and Ishmael, W. K.: J. Lab. & Clin. Med. *45*:331, 1955. (2) Bunim, J. J.; Williams, R. R., and Black, R. L.: J. Chron. Dis. *1*:168, 1955. (3) Holbrook, W. P.: M. Clin. North America *39*:405, 1955.

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New American Medical Association Drug Evaluation Program Outlined

A new program to give physicians timely information on the usefulness and safety of new drugs was announced recently by the Council on Pharmacy and Chemistry of the American Medical Association.

The council's announcement, in a recent issue of the *Journal of the American Medical Association,* is the first in a series of American Medical Association councils on programs inaugurated to replace various "seal-acceptance" activities discontinued in February.

The council will examine available published and unpublished evidence relating to the actions, uses, dosages, hazards and other properties of drugs. It will not conduct clinical and laboratory tests. Reports of these evaluations will be published for the information of the medical profession.

For many years American Medical Association councils have evaluated products used by physicians and the public. In those programs, council seals were awarded to manufacturers and distributors of drugs, foods, devices, and cosmetics that met acceptance requirements.

"The evaluation of a multitude of individual brands, rather than classes of products, became so time-consuming that it threatened to interfere with the broader aspects of the council programs," an accompanying Journal editorial said. ". . . new and more effective programs are being adopted by the scientific councils—programs that do not require

(Continued on Page 60)

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New American Medical Association Drug Evaluation Program Outlined

(Continued from Page 58)

the inspection of individual products or the issuance of seals."

The report by the Council on Pharmacy and Chemistry said:

"There is an increasing demand from the medical profession in general for concise and timely reports that contain an authoritative, unbiased evaluation of new therapeutic agents. . . . In this present era of rapid new developments in therapeutics, the work involved in processing for acceptance many different brands of a drug became cumbersome and time-consuming to the extent that physicians could no longer be provided with the type of service they desired.

"Under the new program drugs will be evaluated at the earliest possible opportunity in order to serve the best interests of the profession. As a rule the greatest interest in a new drug occurs at the time it is introduced on the market for general use. This is also the time when there is the most need for an unbiased report containing information that will aid physicians in judicious or proper use of such medication."

Pharmaceutical firms have been invited to cooperate with the council by forwarding complete data and reports of all laboratory and clinical investigations relating to new drugs so evaluation reports may be made at the earliest possible time.

After council members and other recognized experts have considered the scientific clinical and laboratory evidence, evaluation reports will be published in the *Journal of the American Medical Association* and in the council's annual publication, *New and Nonofficial Remedies.* Firms will be given an opportunity to comment on the reports before publication and due consideration will be given to their comments.

The council will not endorse, recommend, or guarantee any individual brand or preparation of a drug described in *New and Nonofficial Remedies.*

It will not investigate manufacturing procedures, nor try to determine whether any firm has complied with federal, state or municipal laws and regulations.

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Volume 83 **SEPTEMBER 1955** **Number 3**

The Practical Management of Dizziness

JOHN R. LINDSAY, *M.D.*, Chicago

• *The problem of dizziness is greatly simplified if: (1) A definite routine is followed in the history taking and the steps of the examination; (2) the examination is done in two stages; and (3) a simple classification is used in cases of dizziness of vestibular origin whereby three groups are distinguished on the basis of localization of the origin. The etiologic diagnosis is thereby narrowed down to a relatively few possibilities.*

The treatment consists of measures to relieve the symptoms and to reverse the underlying disease which produced the symptoms.

DIZZINESS is one of the common complaints to be heard in a physician's office. It may occur in a variety of systemic diseases as well as in the more localized disturbances of the inner ear.

The management of the patient with dizziness often presents a somewhat confusing and time-consuming problem. The problem arises mainly because of the broad field to be covered in differential diagnosis and the frequent lack of definite clues to indicate the cause.

The first objective in dealing with this complaint is to determine, if possible, whether the dizziness is true vertigo arising from the vestibular system in the ear and its central nervous connections, or whether it arises from some other system of the body which is concerned with equilibrium.

Ocular disturbances, especially if they are of recent origin, may affect equilibrium, particularly during motion, and cause a complaint of confusion or lightheadedness. They do not cause a sense of rotation or turning such as occurs in vertigo of vestibular origin.

The body depends also on kinesthetic sense for maintenance of position and equilibrium. A disturbance of this sense in such diseases as locomotor ataxia or syringomyelia may cause impairment of equilibrium during motion.

Diseases of the circulatory system are more frequently a source of a complaint that may be confused with true dizziness or vertigo. Persons who are subject to attacks of syncope may use the term "dizzy spell" or "blacking out." Certain syndromes such as the carotid sinus syndrome and Stokes-Adams syndrome may cause the complaint of "dizziness." These circulatory disturbances are not likely to cause a true sense of rotation or movement. If there has been a definite loss of consciousness lasting at least for a few moments, the attack is probably not due to a vestibular disturbance but the origin is likely to be found in the circulatory system or more rarely in the cerebral cortex.

Dizziness is a subjective sensation and may be met with in persons with an unstable psychic make-up. There is real doubt as to whether vestibular vertigo with its accompanying nystagmus, ataxia and vegetative symptoms can be caused entirely by psychic disturbance. There has been ample evidence that Meniere's disease or hydrops of the labyrinth

---

Guest Speaker's Address. Presented before the First General Meeting at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

tends to be aggravated by psychic stress, but, in the absence of such a disease entity, it is doubtful if true vestibular vertigo can occur purely on a psychogenic basis. Psychogenic dizziness will not be described as a clear-cut sense of movement such as occurs in labyrinthine vertigo, nor will the patient give a description of a postural vertigo such as is frequent in organic vestibular disturbances.

DIAGNOSIS

The history obtained from the patient is the most important step in the diagnosis of dizziness. It must include specific questioning to bring out all the characteristics of the dizzy spell and to indicate whether vertigo occurs only when certain positions are assumed or certain changes in position made. The history must also include questioning regarding possible related signs and symptoms.

Much of the confusion connected with the management of vertigo can be avoided by the use of a definite routine of examination and by using a simple classification as a basis for diagnosis.

A routine method of examination that serves well in cases of dizziness is as follows:

1. Routine ear, nose and throat examination. Function of cranial nerves. Tests for incoordination, Rombergism, past pointing, etc.
2. Hearing tests.
3. Spontaneous nystagmus.
4. Positional nystagmus.
5. Caloric tests of labyrinthine function.
6. Routine laboratory work including urinalysis and blood counts. Blood pressure.

It has been found advisable to divide the examination into two sessions, leaving the hearing tests and caloric tests usually for the second session, by which time the laboratory work has been completed.

CLASSIFICATION

In order to be of practical value any classification of dizziness must be relatively simple. It has been found advantageous to consider vertigo of vestibular origin in three main groups on the basis of localization. If the case can be classed as belonging to one of these three groups the etiologic diagnosis then becomes somewhat simplified. The various causes can be considered under these three groups.

GROUP 1

This group includes cases in which the vertigo is known to arise from the central nervous system. The localization to the central nervous system is seldom made on the basis of the ear findings alone but is usually based on the associated central nervous system symptoms and signs. Dizziness of central origin is due mainly to involvement of the vestibular nuclei or the directly associated nervous pathways.

In some instances the vertigo may be rapid in onset resembling the vertigo which arises from disease of the peripheral labyrinth. This is true particularly of vascular lesions. In many instances however the vertigo associated with central nervous system disease is postural in character and is brought on when the body and head assume certain positions. The practical importance of postural vertigo is that such information can be readily elicited in the history and the complaint can usually be substantiated by putting the patient through the positions which he has found to cause the symptoms. The reproduction of the vertigo and the observation of a positional nystagmus at that time indicates the existence of an organic lesion of the vestibular system. Some of the central nervous system diseases which commonly produce vertigo are:

1. Inflammatory disease such as encephalitis, meningoencephalitis or brain abscess.
2. Vascular lesions, particularly those affecting the posterior inferior cerebellar artery or related vessels.
3. Tumors, particularly when located in the posterior fossa or affecting posterior fossa structures by pressure or distortion.
4. Degenerative disease, of which the most frequent is multiple sclerosis.

The etiologic diagnosis in the case of the central nervous system lesion is usually dependent upon associated symptoms and signs of central nervous system disease.

In many instances examination of the function of the ear, both as to hearing and vestibular function, will contribute information essential to the localization and determining the cause.

The dizziness which comes with central nervous system disease may require symptomatic treatment if onset is acute and rapid. Complete rest, and the use of drugs such as Dramamine® (meclizine hydrochloride) Bonamine® (dimenhydrinate) and chlorpromazine are of value. In the case of postural vertigo the patient soon learns to avoid the positions that bring on the symptom.

Of practical importance is the fact that a progressive disease such as tumor or multiple sclerosis may cause dizziness, and particularly the postural type of dizziness, as the initial symptom.

GROUP 2

A second group of cases can be localized in origin to the peripheral vestibular mechanism or the 8th nerve. This localization is based principally on the association of auditory disturbances with the onset of the dizziness. While it is true that dizziness may come from the peripheral vestibular mechanism without tinnitus or deafness, there is usually no way in which this can be established. There are many causes for vertigo arising from the inner ear and 8th nerve. Some of these causes are problems for specialists but a few are of direct interest to general physicians as well.

Labyrinthitis due to spread of infection from the middle ear has been a common cause of severe dizziness in the past but need not enter into the present discussion.

Tumors involving the ear or the 8th nerve, although not common, need to be considered because the early diagnosis of such tumors, particularly acoustic neurinoma and cerebellopontile angle tumors, is essential if cure is to be obtained.

Dizziness may not be a prominent symptom, whereas impaired hearing and tinnitus in one ear usually are the first complaints. A good rule to follow is that every person with unilateral nerve deafness of fairly recent development should have a complete examination both of hearing and of the vestibular function, always with the possibility of tumor in mind.

There are some systemic diseases which occasionally are complicated by a disturbance of the labyrinth. Blood diseases in particular such as severe anemia or leukemia occasionally affect the inner ear. Allergic reactions sometimes produce inner ear disturbance. Certain drugs will also cause impaired hearing and dizziness in susceptible persons. Quinine and its derivatives and salicylates are two of the classic examples.

Of especial interest to medical practitioners are two types of inner ear or vestibular disturbance. One is the sudden or apoplectic attack of dizziness, deafness and tinnitus in a previously healthy ear. There may be one attack in a lifetime. Another is the syndrome of repeated attacks of dizziness associated with fluctuating degrees of deafness and tinnitus which is now known as Meniere's disease.

The sudden attack of dizziness, deafness and tinnitus in the previously healthy ear may occur in any age period from the second decade on. The cause in some cases is infection, in some it is cardiovascular disease and in some it is not known.

Some virus diseases apparently have the capacity to set up a reaction within the inner ear. The best known examples are measles and mumps and some other acute infectious diseases.

The measles virus[2, 3] has been found to set up labyrinthitis in the endolymphatic labyrinth, which injures the sense organs directly. While histopathologic proof has been obtained only in the case of measles, the clinical evidence indicates that some infections of the upper respiratory tract, probably viral in nature, may also affect the labyrinth.

It also seems that the inner ear or 8th nerve may be the site of a toxic reaction to a focus of infection elsewhere—in the paranasal sinuses, for example.

Vascular disturbances in the inner ear are probably the most frequent cause of an isolated sudden attack of dizziness and deafness. Little information is available about the pathologic change in the human ear in such cases, but there is clinical evidence that a vascular accident, probably occlusion, may produce a severe dizzy spell accompanied by varying degrees of permanent damage to both auditory and vestibular function.

Vascular occlusion probably produces a fairly typical clinical picture in that the onset is rapid, recovery is slow, requiring sometimes many months before dizziness is fully cleared up, and there is a varying degree of permanent damage.

A sudden attack of deafness and dizziness without any evident cause sometimes occurs in persons in their twenties and even earlier. Recovery from the dizziness is gradual, hearing may improve but some degree of permanent damage is the general rule.

TREATMENT

Symptomatic treatment includes absolute quiet, sedation and the use of Dramamine, Bonamine, chlorpromazine or related drugs with maintenance of fluid balance by intravenous infusion if necessary. Vasodilator drugs such as nicotinic acid and intravenous histamine or procaine have been tried but with questionable effect. If some function remains there is usually spontaneous improvement in hearing for the first two months.

The syndrome of recurrent attacks of dizziness, along with deafness and tinnitus is a more common condition. It is known as Meniere's disease in most medical writings at present because of the clear-cut clinical syndrome and the evidence that the pathological condition known as idiopathic hydrops of the labyrinth is present in the inner ear in such cases. Meniere's disease is greatly feared by the patient because of the incapacitating spells of dizziness, which are unpredictable as to frequency, duration or severity. The deafness and tinnitus follow a more consistent pattern. The more constant clinical findings are the hearing loss for low tones and the low pitched "roaring" tinnitus, both of which fluctuate in severity from time to time. In about 90 per cent of cases the disease is unilateral. The diagnosis can not be made on the basis of dizzy spells alone.

The cause of Meniere's disease is not yet known. It seems probable that some disturbance in the mechanism of endolymph production must occur and that some alteration in the constitution of the endolymph thereby takes place. The theory currently favored is that this disturbance in endolymph occurs as a result of autonomic imbalance affecting the blood vessels in the cochlea. There is some clinical evidence that mental or psychic stress as well as nervous fatigue tend to aggravate the condition.

The medical treatment of Meniere's disease has been relatively unsatisfactory. Various medicines have been used with the object of preventing the dizzy spells, including low salt diet, diuretics, vasodilator drugs such as histamine and nicotinic acid and blocking agents such as Banthine and many other drugs. Clinical investigations by Perlman and Goldinger[3, 4] seemed to refute the theory that the disease could be influenced by the salt intake and the use of diuretics.

Routine medical treatment used by the author includes advice to avoid the use of particularly salty foods but not to restrict the use of salt in ordinary quantities in cooking. Nicotinic acid is prescribed routinely, partly because it is simple for the patient to use at home. Fifty milligrams twice a day is the usual dose. So far no convincing evidence has been observed that any of the medical therapy used has had any consistent value. It is important to control the patient's activities, for example, to avoid overwork and to encourage regularity and moderation in habits of eating and resting. A mild barbiturate is usually helpful. It would appear from clinical observation that mental stress and fatigue are important factors to avoid. It is possible that the psychological effect of the general management of the patient may be the most important factor. At least 90 per cent of patients under medical management show definite improvement and may be able to continue normal activities.

During a dizzy spell different methods of treatment have been tried. Intravenous infusions of histamine and of procaine have been used with indefinite results. Procaine block of the cervical sympathetic ganglia have also been tried without definite effect. Dramamine by mouth, or intravenously if necessary, is of definite value. Bed rest and avoidance of movement is essential.

In the past 15 years the author has observed that between 5 and 10 per cent of patients with Meniere's disease have not been sufficiently controlled by ordinary medical therapy and have needed some other type of treatment.

Procaine block of the stellate ganglion has not proven successful in our hands.

Streptomycin in carefully controlled dosage carried to the point where the vestibular responses are abolished has been used in a few selected cases with good results in all. Streptomycin therapy unfortunately gives the patient an ataxia in order to give protection against dizzy spells. This ataxia is soon compensated for in younger patients but less readily in patients in the sixth decade and over. The author is of the opinion that streptomycin therapy is to be considered mainly in bilateral cases in which the dizzy spells are causing definite disability, provided the patient is under about 50 years of age.

Surgical operation to destroy the inner ear is the treatment of choice in unilateral cases in which there is continuing disability from dizzy spells. Complete destruction of the labyrinth is preferable to any attempt at partial destruction. It is also preferable to section the vestibular nerve, for the risk is less and tinnitus is more likely to be relieved.

GROUP 3

In addition to the cases of dizziness which can be localized either to the peripheral or to the central vestibular mechanism, there is a somewhat larger group in which definite localization may not be possible. These are the cases in which patients complain of vertigo but have no deafness or tinnitus and no evidence of any disease of the central nervous system. They may or may not have some associated systemic disease which might suggest an explanation for the dizziness. In this group the patient may have a single attack of dizziness which clears up and does not recur; he may occasionally have repeated attacks or he may have dizziness which is brought on only when he gets into certain positions.

In the event that the patient states that he gets dizzy only when he sits up in the morning, or when he turns on one side in bed, or when he stoops over or looks upward for some moments, it is usually possible to reproduce the dizziness by placing him in these particular positions. These postural tests will confirm the patient's complaint. If the dizziness can be reproduced and is accompanied by nystagmus, it is clear that there is organic vestibular disturbance.

There are a number of conditions that can cause dizzy spells or dizziness of the kind in this group.

Acute infection usually of the virus type frequently causes vertigo either in the form of an attack which may require several days for recovery or in the form of postural vertigo. Occasionally there appear to be mild epidemics of such infections. Disease of this kind has been named "vestibular neuronitis" by Hallpike and associates.

Cardiovascular disease may also cause this type of dizziness. The vertigo which is caused by a vascular accident or occlusion tends to follow a particular pattern. There is an acute onset of vertigo and it remains severe for a few days then gradually recedes. As the symptom decreases it tends to become a postural symptom only. It is characteristic of this type that several months and even one or two years may be required for complete recovery from the dizziness. The site of the vascular lesion may not be evident. An attack of dizziness of this type in a patient who has definite cardiovascular disease is probably an indication of vascular occlusion. While spontaneous recovery from such an attack is the general rule, it is not uncommon to have other central nervous system vascular accidents.

The treatment consists of bed rest, sedation and the use of Dramamine or a similar drug during the acute stage of the dizziness, followed by the appropriate medical management of the cardiovascular disease.

Dizziness frequently occurs in patients with a hypotensive state and it is usually of postural type. The use of drugs such as ephedrine or ergotrate may be of some value in such patients.

Dizziness is not an uncommon complication at the menopause. Intermittent periods of postural vertigo may occur for one to two years. Hormonal therapy has been used in such cases but with indefinite results. The prognosis is good for complete relief from symptoms.

Certain drugs can cause dizziness and this is frequently a postural symptom only.

Another group of patients who often complain of dizziness are those with injury to the head. A high proportion of persons following a blow to the head may complain of dizziness for several weeks or months. The blow may not be severe enough to cause fracture or even unconsciousness. Usually such patients are dizzy only when they get into certain positions.

The practical importance of postural vertigo is not that it necessarily localizes the lesion, but that if this type of vertigo is indicated by a careful history it is usually possible to reproduce the symptom on postural tests and obtain objective proof by observation of the accompanying nystagmus.

The origin of dizziness following a blow to the head is not certain, but is not of practical importance since the dizziness subsides in time.

There are many cases in which no definite cause of dizziness can be determined. In some cases there may be a single short attack; in others, repeated attacks; and in many cases dizziness may be a purely postural symptom. The latter sometimes lasts for months and does not respond well to treatment. Avoidance of the offending positions is essential.

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The Pathogenesis of Peptic Ulcer

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• *Peptic ulcers of the stomach and duodenum look much alike and the reaction around them is nonspecific, yet other evidence indicates that ulcers in the two locations do not represent the same disease. It is suggested that a common causal factor is the digestive effect of gastric juice, and that hypersecretion may produce duodenal ulcer without any predisposing change in the relatively susceptible duodenum. The development of a gastric ulcer, which may occur without hypersecretion, presumably requires some previous alteration of the normally resistant gastric mucosa. Focal metaplasia of the gastric mucosa to tissue resembling the lining of the small intestine, which is observed frequently in association with gastric ulcer, may be a factor in providing decreased resistance to peptic injury.*

THE TERM "PEPTIC ULCER," in use since 1882, and applied to ulcers that occur in various regions of the alimentary tract reached by gastric juice, implies a common cause related to peptic activity. Most discussions make no clear etiologic distinctions between gastric and duodenal ulcers. The most recent edition of one of the commonly used textbooks of pathology[1] contains the statement that these two lesions "in all likelihood have a similar etiology."

The tissue reaction around peptic ulcers is nonspecific. There is fibrosis at the base related to the duration of the lesions, but no clues concerning pathogenesis are provided by the structure. This presentation will consider evidence of other sorts relating to ulcer pathogenesis, particularly with respect to the role of digestion by gastric juice and to the question of whether gastric and duodenal ulcer represent the same disease.

There is much evidence to support the dictum expressed by Schwartz[10] in 1910, which can be translated as "no acid, no ulcer." The absence of peptic ulcer in patients with pernicious anemia is striking. No report could be found of either gastric or duodenal ulcer in association with this disease where gastric achylia was present, and the author has never observed either type of ulcer when there were no parietal cells. The well-known occurrence of jejunal ulcer after gastroenterostomy in man or following the Mann-Williamson procedure in dogs, and the development of entirely comparable ulcers adjacent to Meckel's diverticula containing gastric mucosa provide strong evidence for a role of gastric juice in the production of these intestinal ulcers. Wells and MacPhee[12] recently emphasized the inverse relationship of the incidence of postoperative jejunal ulcer to the amount of gastric mucosa removed by the surgeon.

Of note also is the relatively recent observation that the administration of cortisone or corticotropin (ACTH) may induce peptic ulcer at the same time as gastric secretion is augmented.[6]

To these experiences may be added the frequent and predictable appearance of ulcers in animals treated with continuously acting histamine[11] and the regular occurrence of duodenal ulcers in dogs given continuous administration of 0.2 per cent pepsin in 0.15 normal hydrochloric acid by gastrostomy for several days.[5] This concentration of acid approximates the maximum which can be secreted by the gastric mucosa.

In relation to the possible role of acid and pepsin in the production of ulcers it is important to keep in mind not only the capacity of the mucosa to produce digestive secretions, but also the mechanisms which may inhibit their effect. Chief among these is the buffering influence of food, which may be sufficient to neutralize the free acid in the stomach completely. Hay, Varco, Code and Wangensteen[7] showed that proper feeding of animals may prevent the development of ulcer after histamine treatment, and like phenomena were observed by the author in similar experiments. Differences in eating habits, then, particularly in individuals with gastric hypersecretion, should be expected to produce considerable differences in exposure of the mucosa to active gastric juice. It seems probable that the development of peptic ulcers following severe burns, cerebral operations and head injuries may be prominently influenced by lack of protective food in the stomach of the acutely ill patients.

Alkaline duodenal content may be regurgitated into the stomach, and although this mechanism is unpredictable, it is a potential reducing influence upon the digestive activity of the stomach content.

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The foregoing observations suggest an essential role of active gastric juice in the pathogenesis of gastric and duodenal ulcer in man, but there are several reasons for doubting that this is the only factor, or that it is even the major cause in some cases. Among these are some facts which suggest that gastric and duodenal ulcer may be distinctly different processes.

First is the different secretory pattern in patients with the different lesions. Many reports indicate hypersecretion in stomachs of patients with duodenal ulcer but not in those with gastric ulcer. This difference is particularly easy to recognize when the "basal" secretory activity is measured, as Bloomfield and French[2] demonstrated in 1938. This basal secretion is that which occurs without specific stimulation and so is particularly important because it represents the gastric secretion at a time when no buffering food is present in the stomach.

This difference of gastric function in patients with gastric and duodenal ulcer is paralleled by differences in stomach size. It was reported recently[3] that stomachs from patients with duodenal ulcer are nearly always larger than average and have a larger amount of acid and pepsin-secreting mucosa, while those from patients with gastric ulcer do not have these peculiarities.

Another anatomical difference in the two types of cases relates to the nature of the so-called chronic gastritis which is present. In nearly all cases of both types of ulcer there is infiltration of the gastric mucosa in the pyloric zone, or antrum, by plasma cells and lymphocytes, and this relation of ulcer to chronic gastritis has been noted repeatedly in the literature. Little attempt has been made, however, to differentiate between mucosal changes in gastric and duodenal ulcer cases. It has been suggested[4] that focal gastric mucosal metaplasia to glands of intestinal type may have a significance different from that of other changes which are included under the name of gastritis. This replacement mucosa is characterized by the presence of Paneth cells, inhabitants of normal intestinal mucosa, which are not seen in the normal stomach. In a comparative study it was noted that the incidence of metaplasia of this type in the gastric antrum was twice as frequent in cases of gastric ulcer as in controls or in association with duodenal ulcer (Table 1). The specimens bearing these ulcers were obtained at autopsy soon after death and were examined carefully in comparison with control cases of similar age and sex, factors which relate to the occurrence of gastric mucosal metaplasia.

Most of the metaplasia was situated at a distance from the ulcer; it was not simply a repair phenomenon at the ulcer margins. The possibility that it represents healed superficial ulcers in stomachs prone to development of ulcers has been suggested and cannot be certainly ruled out. In recognized healed ulcers, however, and at the borders of healing ulcers, the repaired mucosa has a different appearance, and does not assume the specific character of intestinal mucosa with recognizable Paneth cells.

TABLE 1.—*Frequency of focal gastric antral mucosal metaplasia in patients with chronic gastric and duodenal ulcer.*

	No. of Cases	No. with Metaplasia	Pct. with Metaplasia
Chronic gastric ulcer or scar	33	26	79
Matched controls	66	27	41
Chronic duodenal ulcer or scar	39	14	36
Matched controls	78	32	41

TABLE 2.—*Incidence of peptic ulcer in 3,400 autopsies.*

Location	Cases	Incidence (Per Cent)	Multiple Ulcers (Pct. of Ulcer Cases)	Combination of Locations (Pct. of Ulcer Cases)
Duodenum	122	3.6	34	11
Stomach	105	3.1	35	12

Ulcers of the stomach and duodenum might be expected to occur together as frequently as multiple ulcers appear in the same region if they are the product of the same causal factors. In a study of 3,400 autopsies on adult individuals performed over a ten-year period, multiple ulcers or ulcer scars in the same region (either stomach or duodenum) were found in about 35 per cent of the ulcer cases, while associated lesions in the two different regions occurred only one-third as frequently (Table 2). This incidence of associated gastric and duodenal ulcers is less than that which should exist if the same causes were involved in both.

These observations suggest fundamental differences in pathogenesis of gastric and duodenal ulcer and consequently indicate a need to consider the presence of factors other than digestive activity alone in the production of peptic ulcers. Such additional factors presumably modify mucosal resistance to peptic injury.

The normal stomach is quite resistant to acid and pepsin, as an essential feature of its digestive role. Deficiency in this resistance as a cause of ulcer is an old idea, and measured modifications in susceptibility to acid-pepsin injury have been produced in animals by various means. Among the mechanisms suspected as contributing to local reduction of mucosal resistance in man are vascular narrowing, ischemia due to shock, intoxications, irritation of foods, alterations in the surface protective layer of mucus, and vitamin deficiency. Clear proof of the influence of these or other possible mechanisms in the production of human peptic ulcer would be very difficult to identify since the operation of such factors might be transient or inconspicuous.

Recognizing that direct evaluation of factors such as these would be almost impossible in man, the author approached the question of whether some evidence of reduced resistance might be recognizable in the gastric mucosal structure. The change which presents itself as possibly providing this evidence is the focal mucosal metaplasia described above, which appears with unusual frequency in association with gastric ulcer and affects principally the pyloric zone, or antrum—the region in which practically all gastric ulcers are found.

It is possible that this altered mucosa of the intestinal type is itself less resistant to the action of gastric juice, in view of demonstrations that intestinal mucosa in animals is more susceptible than gastric mucosa to injury by the elements of gastric juice.[8, 9] A greater susceptibility of intestinal mucosa to peptic injury would provide an explanation for the predominance of ulcers in the duodenum when no gastric mucosal metaplasia is present, and it is tempting to suspect that gastric mucosal metaplasia might represent a reason for the development of comparable ulcers in the stomach even in the presence of relatively low gastric secretory activity. Inasmuch as metaplastic change could be regarded only as a predisposing cause, the lack of better correlation with the occurrence of gastric ulcer can be explained, and the author believes that the possibility of a predisposing role of mucosal metaplasia of the intestinal type should not be neglected. It is possible that a metaplastic alteration which is not distinctly recognizable as intestinal mucosa might also represent decreased resistance of the gastric mucosa.

CONCLUSION

The observations herein outlined represent an incomplete survey of the large number of studies which bear upon the ulcer problem, but they point to certain suggestions concerning the pathogenesis of peptic ulcer which can be expressed in the following hypothesis: The destructive mechanism which produces peptic ulcer is peptic digestion in an acid medium. This may require little predisposing change in the relatively susceptible jejunal mucosa after gastroenterostomy, in the mucosa of the ileum adjacent to a secreting Meckel's diverticulum, or in the duodenum when gastric secretory activity is high and there is inadequate neutralization of the gastric juice. The normal stomach, by contrast, is resistant to gastric juice even when it is concentrated. If acid and pepsin concentrations are low, the duodenal mucosa also resists injury; but even with a reduced secretory capacity of the stomach, abnormalities in its antral portion, perhaps represented by the intestinal type of mucosal metaplasia, may provide sufficient reduction in resistance of this region to permit development of gastric ulcer.

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The Management of Peptic Ulcer

An Internist's Approach

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• Gastric and duodenal ulcers are common conditions. There is a good natural tendency to heal but medical care does facilitate healing and the prevention of relapse. Bed rest, light diet and attention to the anxiety factor still pay dividends. Unfortunately there have not been any major medical advances in recent years.

With gastric ulcer, careful clinical and radiological observations will enable simple and malignant ulcers to be distinguished with considerable accuracy.

The risk of gastrectomy is less than the risk of leaving a persistently unhealed ulcer, and should be undertaken if ulcers remain unhealed or if there are frequent relapses threatening economic security.

IT IS IMPORTANT to have some perspective of the problem of peptic ulcer as it occurs in the community and particularly to remember that the scars of gastric and duodenal ulcers are one of the commonest of incidental observations at autopsy. There is undoubtedly a very good natural tendency to recovery and there is no doubt that medical treatment not infrequently gets the credit for nature's cure. Taking the total number of persons with diagnosed ulcers in the community—those who have had definite ulcer-like symptoms or complication of ulcer—it will be noted that in about one-third of the cases, the ulcer has been an episode followed by some years of freedom from dyspepsia, or with perhaps slight symptoms; and that in rather more than one-third of the patients there are recurrent symptoms at varying intervals but that with some degree of care and discretion the bouts of dyspepsia can be minimized and lead to little or no loss of time from work. In the remaining cases, the patient has had a great deal of pain or troublesome complications and if operation has not already been performed, it is really needed. This is the picture that one gets when a total population is surveyed, as I had the opportunity of doing with Dr. Doll a few years ago, when we interviewed about 6,000 people in a variety of occupations. Those who work only in hospitals might perhaps feel that the overall picture of ulcer is much more troublesome, but of course the patients are already a selected group by the time they reach hospital.

In terms of pathology, the natural history of ulceration in the more troublesome cases is a whole series of ulcers which come and are healed completely, but a time may come when the ulcer no longer heals and with increasing induration and endarteritis of the smaller blood vessels, the blood supply becomes so deficient that it can no longer sustain healing tissue and in fact healing is no longer possible. At this stage, the ulceration process can always flare up, causing further penetration and erosion of main blood vessels, but sometimes these persistent chronic ulcers may be remarkably pain-free for many months on end. Obviously at this stage surgical treatment is required.

The size of the ulcer does not correlate well with the amount of trouble caused to the patient. Some of the most persistent and painful ulcers are relatively small. On the other hand, a very large ulcer with a short history may heal completely and remain healed.

An accurate diagnosis is of course the first essential. It is perhaps not sufficiently realized how atypical the pain may be. It is easy enough with remittent attacks of epigastric or retrosternal pain related to meals, but quite often the pain bears no relationship to food and its site may be unusual—in the lower chest, the loin, the back or the iliac fossa. Sometimes pain may be felt in the back only. Again, pain may be virtually absent, but with perhaps only a sense of discomfort or nausea; and there seems no doubt that the ability of some patients to feel deep-seated pain varies greatly and it may be possible to correlate this with an obvious depression of deep-pressure pain when tested by pressure on the styloid process or the Achilles tendon. These cases are only diagnosed when the internist is prepared to order a barium meal with these atypical clinical pictures.

We have no specific treatment for peptic ulcer, and I do not believe there have been any specific

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cures in spite of many claims made in recent years. The management of peptic ulcer is still an exercise in old-fashioned medicine just as was pneumonia before the introduction of antibiotics. Nevertheless, a great deal can be done to influence the disease process. The essence of treatment is achieving physical and mental rest, and the relief of pain. From the patient's point of view the relief of pain is the first essential. Bed rest and small feeds may be sufficient with alkalies, milk drip and anticholinergic drugs in reserve. The best single therapeutic measure for troublesome pain is a milk drip, and a very small intranasal tube is well tolerated by the majority of patients. If relief of pain is slow and difficult to achieve it is of bad prognostic significance and operation is generally required. Having achieved relief of pain one can then concentrate on the general measures, particularly those which influence the disease process. I am sure bed rest is one of the most important therapeutic measures. My colleague, Dr. Doll, has measured the rate of healing of gastric ulcer, and has observed the influence of antacids, belladonna, phenobarbitone, Robaden and milk drip, but so far a significant improvement can be correlated only with bed rest. However, in individual circumstances it may be better to let the patient carry on at work rather than impose the added financial hardship of loss of employment. Patients who put on weight usually do well and patients who lose weight do badly. The basic diet should be built up as quickly as possible to provide an adequate calorie, protein and vitamin intake, and the milk drip kept going for a time to further improve the nutritional state.

The next essential is to tackle the anxiety factor which may seriously aggravate the disease process and retard healing. It is important to establish good rapport with the patient, and this needs time, privacy and patience, and on the whole is more easily done with a patient having bed rest than attending one's consulting rooms. Once the patient feels he has a sympathetic independent person who is anxious to help and is there in the capacity of friend and not as judge, he may be prepared to unburden his difficulties which too often have caused pent-up emotional stress because there has been no one in whom he can confide. The relief of such emotional tension is in itself of great therapeutic value.

So often the patient gets his difficulties out of perspective and they have become much more important than they really are. This is where the independent observer can so well help. This approach is equally important with other chronic illnesses such as pulmonary tuberculosis and skin disease. I prefer to call this not psychosomatic therapy but ordinary old-fashioned medical care. It was certainly instilled into me by Professor Frazer at St. Bartholomew's Hospital long before psychosomatic medicine was talked of.

As far as diet is concerned, I believe a simple commonsense diet avoiding the common indigestible foods, with regular feeds is all that is necessary. I do not advocate elaborate dietary regimens. One should always avoid overtreatment, which can be positively harmful with a patient of obsessional type.

With regard to medication, I hold no brief for excessive and persistent use of alkalies, apart from the initial phase when there is pain. Alkaline therapy is, however, usually necessary with ambulatory treatment. There is no doubt that excessive milk and excessive alkalies can lead to metabolic difficulties and chronic tubular nephrosis. I believe the most important single medication in the management of peptic ulcer is phenobarbitone. I do not hold any strong brief for the use of anticholinergic drugs except when there is pain. During the past few years there has been a tremendous spate of these anticholinergic drugs. Belladonna has had a time honored role, and these new preparations have sought to emulate its action, but with fewer undesirable side-effects. Banthine® blazed the trail and has been followed by a bewildering number of other drugs, including Antrenyl,® Bentyl,® Centrine,® Lergine,® Lytensium,® Monodral,® Pamine,® Prantal® and Wyovin®; and much has been written on both sides of the Atlantic about their pharmacological and clinical effects.

All these drugs have much in common. The chemical composition is complex; they achieve an anticholinergic effect like atropine, either by blocking transmission at autonomic ganglia or at the peripheral effector site; they reduce basal secretion and slow the emptying time of the stomach and reduce intestinal muscular activity. Although it is mainly claimed that side-effects are minimal, in practice the usual atropine-like disturbances of impaired vision and dryness of the mouth, are quite common and sometimes there may be difficulty in urination and constipation. Moreover, there is considerable variability in response between different patients and even in the same patient at different times.

In general the therapeutic contribution of these new drugs is not impressive and they do not represent any real major advance in the therapy of peptic ulcer. Nor were they likely to do so, as atropine and related drugs, although of real value in smooth muscle spasm, have never been conclusively proved to be of great worth in the management of peptic ulcer. Most clinicians would agree, however, that belladonna can be useful in stopping pain, particularly night pain, in duodenal ulcer. According to Nicol[2] (1939), even really large doses of atropine apparently had very little effect on the acid of the stomach when measured over 24 hours and no better success seems to have been achieved by ganglion-blocking agents in this respect (Rowlands,[3] 1952). It has been postulated that slowing the rate of emptying of the stomach would allow the more effective use of antacids, but this hypothesis is by no means proved. The distention of the stomach is itself an important stimulus to secretion, and slowing of the rate of emptying may well mean more prolonged secretion, which would offset the neutralization. Again the inhibition of other intestinal secretions, particularly pancreatic, might offset any benefit to the duodenum from lowering of the gastric acidity. Indeed, as a means of facilitating healing of peptic ulcer, the use of these drugs is still based on doubtful hypotheses and insufficient clinical study with control series.

The clinical evidence of the value of methantheline (Banthine) in controlled observations was quite unimpressive apart from some reduction of pain, and Friedlander[1] (1954) did not find that the natural history of duodenal ulcer was beneficially affected. Texter and Barborka[4] (1954) followed 250 patients with proved peptic ulcer for two years. They concluded that although symptomatic improvement for a period frequently accompanied the use of these agents, the eventual course of the disease was not altered.

Although the natural history of the disease is not materially influenced, improved relief of pain is an important consideration from the patient's point of view and justifies the use of any of these preparations during the phase of active ulceration, but it would seem reasonable to see whether the desired effect cannot be obtained with the traditional belladonna, before prescribing these new, and much more expensive, preparations.

In general, patients like to have brand new treatments and it is an advantage to have a variety of compounds available in the management of a chronic and relapsing disease. Apart from some difference in side-effects, it is unlikely that any one of the many new preparations will prove to have any real superiority over its rivals, and the practitioner need not feel that he must personally evaluate each preparation.

What can be done about the prevention of relapses? One should aim at the prevention of nervous tension, of fatigue, of irregularity of meals, of long intervals without food, and at the maintenance of a good nutritional state. Prevention of fatigue usually means giving up some commitments, and the physician must take full advantage of the period of illness to encourage the patient to lighten his load, which he can do on medical grounds without loss of face—a most important consideration, as otherwise he feels that his colleagues think that he is letting the side down, and this engenders more tension. I believe the patient can do a great deal to reduce his state of chronic nervous tension once the problem is posed to him. It is possible for a patient to get out of his skin and look at himself, and really ask what he is gaining by his constant state of nervous anticipation. To a certain extent it may have become a bad habit which by voluntary effort the patient may be able to overcome with encouragement and assistance. Finding some new form of relaxation is most helpful, particularly, music, painting or some contact with the countryside — bird watching or the study of trees and flowers. A wider vista of life in other forms does much to help the individual to get his own life and little problems in proper perspective. Sometimes breathing or postural exercises have a remarkable effect in enabling the patient to reduce his emotional load. I have seen many patients who have been able to overcome their chronic anxiety state.

The internist has an important role in the selection of patients for operation. With good selection, excellent results are obtained in about 85 per cent of cases, poor results in 5 per cent, with a 1 to 2 per cent mortality rate. However, one is still a bit concerned about the long-term follow-up—about a tendency to weight loss and anemia, and tuberculosis—and it is wise to ensure that the patient "earns" gastrectomy by evidence of failure to respond to medical management or by troublesome relapses.

The foregoing are general considerations, and I would now like to turn to particular problems of management of gastric and duodenal ulcer separately.

Gastric Ulcer

First, it is important to realize that radiographic studies can be misleading. Small gastric ulcers are not always visualized radiologically and may be seen gastroscopically, but false positive diagnoses are not infrequent, and rugal folds particularly high up on the lesser curve may simulate a gastric ulcer. Further diagnostic difficulty may sometimes arise with hyperperistalsis and with primary gastric diverticulum, and gastroscopy is very helpful particularly when there is some discrepancy between clinical and radiological pictures. Figure 1 illustrates pseudo ulcer.

Naturally, with gastric ulcer the question of malignancy arises, but I believe that with a combination of radiological and gastroscopic studies it is possible very accurately to pick out simple ulcers. Our confidence in so doing has been strengthened by a follow-up study of 285 consecutive patients with gastric ulcer, followed up over three years. The

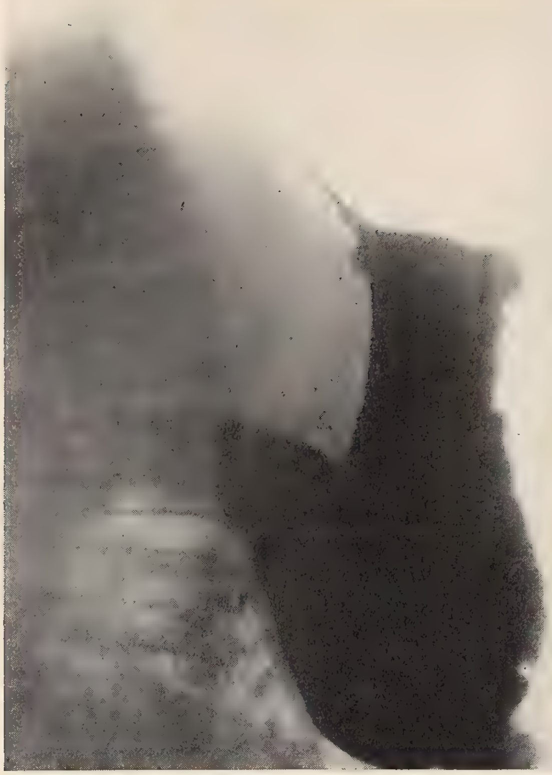

Figure 1.—A pseudogastric ulcer due to rugal irregularities.

TABLE 1.—*Differential diagnosis of simple ulcer.*

Material: All fresh cases of gastric ulcer—i.e., cases never previously diagnosed at Central Middlesex Hospital or elsewhere—seen at the hospital over a period of two years.

Total	307
Initially diagnosed at partial gastrectomy for perforation or hematemesis	22
Available for study	285

Clinical Group	No. of Cases	Presumed Benign Ulcer (Incomplete Follow-up)	"Proved" Benign Ulcer	"Proved" Malignant Ulcer*
I	266	16	249	1 (0.4%)
II	19	0	15	4 (21%)
Total	285	16	264	5 (1.8%)

Notes:

Group I—Confident diagnosis of benign ulcer x-ray studies available	255
Diagnosed at operation for perforation only	3
Diagnosed at gastroscopy only	8
Group II—Diagnosis of benign ulcer, but possibility of error recognized	19

Proof of benign ulcer:

Group I—Died, no evidence of gastric cancer	12
Subsequent partial gastrectomy	64
Followed for 3 years; no evidence of gastric cancer	173
Group II—Died, no evidence of gastric cancer	1
Subsequent partial gastrectomy	6
Followed for 3 years; no evidence of gastric cancer	8

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*Proof of malignant ulcer by autopsy or by partial gastrectomy in each case.

ulcers were put into two groups—those thought to be simple and those in which there was an element of doubt. Ulcers thought to be definitely or probably neoplastic were classified separately and treated surgically.

The follow-up is, in fact, not yet complete but amongst the ulcers deemed to be simple only one was proved malignant in our follow-up studies.

The distinction between simple and malignant ulcer of the stomach is most important. With the combination of clinical features and radiological findings and, in doubtful cases, gastroscopy, it is possible to achieve a very high degree of accuracy. (From the follow-up experience it seems that the chance of missing a malignant ulcer is less than one-half of 1 per cent.) But this can be achieved only by constant vigilance and cooperation between the radiologist and the clinicians. My colleague, Dr. Pygott, radiologist at the Central Middlesex Hospital, stresses the following points between the diagnosis of simple and malignant ulcer:

(a) *Size and site.* Mere size of the ulcer is not of any diagnostic significance, nor is site in itself an absolute criterion, but simple ulcers of large size are rare in the antrum and on or near the greater curvature.

(b) *Shape.* Ulcers that form a saddle across the lesser curvature extending out to both anterior and posterior walls of the stomach are usually malignant.

(c) *Character of the crater.* Simple ulcers occurring anywhere except in the roof of the antrum near the pylorus can generally be shown in one view or another to project beyond the general outline of the adjacent normal portion of the stomach. Where a large part of the stomach wall is occupied by an ulcer so that the profile features are indeterminate, some help may be obtained from the fact that large neoplastic ulcers tend to be relatively shallow whereas large simple ulcers are usually deep. As a side feature, air is rarely trapped in the crater of a neoplastic ulcer in the standing position but is commonly trapped in large simple ulcers.

(d) *Margins of the crater.* The margins of a neoplastic ulcer may be quite shallow and irregular when ulceration has just commenced in a plaque of growth. The meniscus sign of a rolled margin to the ulcer is equally well seen in large simple ulcers as in neoplastic ones and is not, in my view, a deciding one—except when it is found around a shallow ulcer, when I believe it can be a useful sign of neoplasm.

(e) *Features of the surrounding stomach.* Gross distortions of the normal outline of the stomach can occur as a result of simple ulceration through scarring in the ulcer area and extending from it. These distortions are of a linear character—i.e., pulling

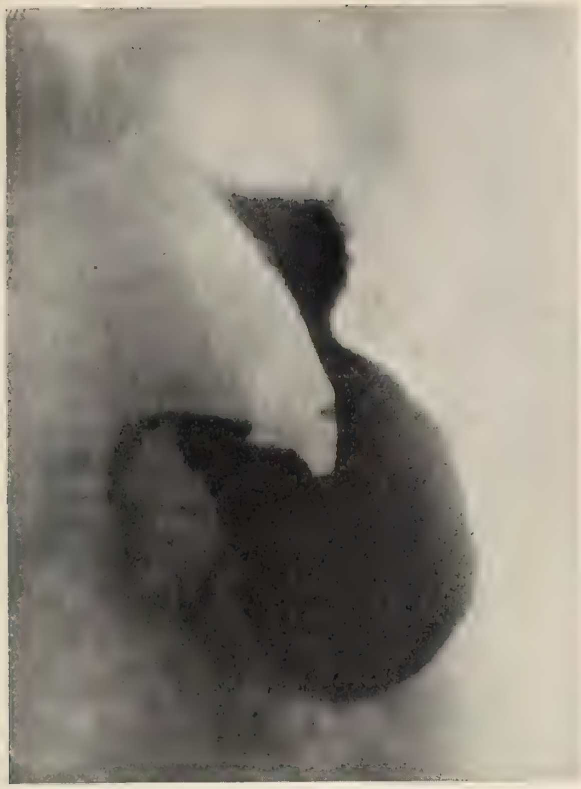

Figure 2.—A simple gastric ulcer showing the ulcer projecting clearly from the lesser curve.

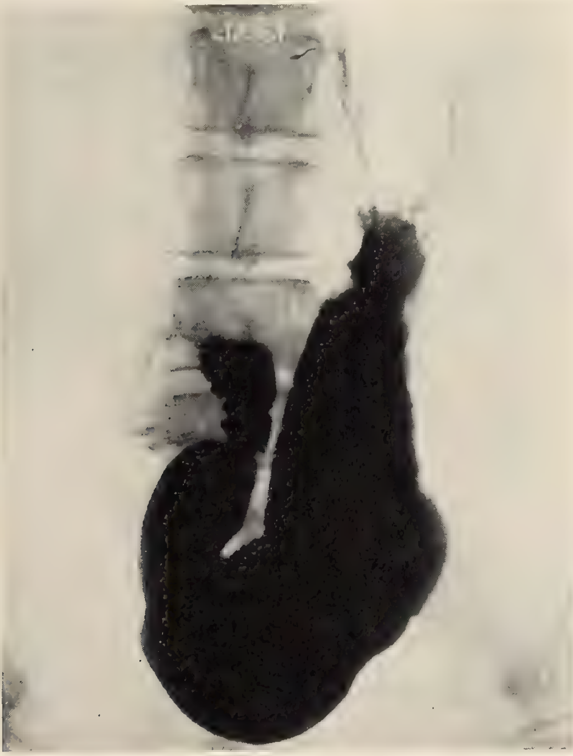

Figure 3.—A malignant ulcer of the stomach showing the ulcer crater is within the line of the lesser curve.

TABLE 2.—*146 patients with gastric ulcer treated in bed for four weeks.*

	No.	Per Cent
Completely healed	34	23
More than 80 per cent healed	32	22
50-79 per cent healed	40	27
Less than 50 per cent healed (including 14-10 per cent with ulcer larger than on admission)	40	27

All followed up. None had cancer.

toward the ulcer or ulcer site in radiating lines from it—commonly in the line of the lesser curve itself, rolling the stomach up and drawing up the antrum and pylorus; or obliquely down into the antrum, resulting in the teapot type of deformity; or transversely, resulting in the hourglass deformity, the greater curve being drawn toward the lesser.

In neoplastic ulceration, deformity of outlines tends to be multidirectional. The antrum may be generally contracted in a more or less conical manner, or the curvatures of the stomach may be irregularly approximated from the two sides or a smaller area of stomach may be bizarre in shape.

The mucosal pattern around the neoplastic ulcer may of course be grossly destroyed or the rugae may be stiffened and broadened and little affected by controlled compression.

Reference is always made to disturbances of peristalsis in the area of ulceration, but this is of relatively slight value in the cases presenting most difficulty. Contractions are grossly impaired or absent in the vicinity of large simple ulcers. Of course, where peristalsis is absent in an area of the body of the antrum where ulceration is slight in extent, there is good evidence of neoplastic involvement.

At times gastric insufflation through a Ryle's tube with air either alone or in combination with intravenous injection of morphine, 6.0 mg., may give more clearly defined answers to the points raised but these special methods do not supplant an investigation by a complete routine which should include careful palpation of the abdomen when an ulcer of doubtful nature has been located.

It is in fact easier to distinguish between simple and malignant ulcers radiologically than it is to distinguish them from the peritoneal surface at a time of acute perforation, and in our experience some 10 per cent of "simple gastric ulcers" diagnosed at laparotomy for perforated ulcer, are in fact malignant. Gastroscopy is, of course, a further aid in achieving accuracy of diagnosis (see Figure 4).

There is no doubt that in patients with a gastric ulcer with a short history, complete healing often occurs. In fact, this may occur while they are on a waiting list to come into hospital. Once they come into hospital our general experience with the healing of gastric ulcer is summarized in Table 2.

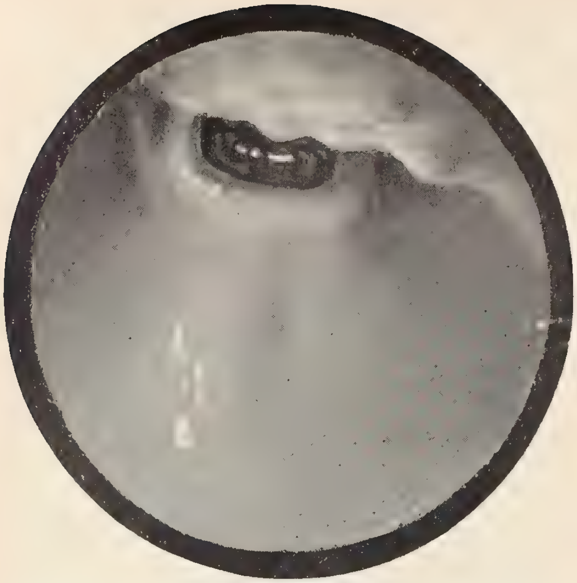

Figure 4.—A malignant ulcer in the pyloric antrum which appeared to be a simple ulcer from the peritoneal surface at the time of acute perforation.

Surgical treatment is not generally undertaken unless after some months the ulcer still remains unhealed with return of symptoms. I do not believe that routine partial gastrectomy is needed for all gastric ulcers. If one can achieve complete healing radiologically and gastroscopically, there is, in fact, a very fair chance of the patient's having some years of freedom from further trouble. In practice, about half the patients will need operation sooner or later.

Duodenal Ulcer

Although the radiological diagnosis of duodenal ulcer is fairly accurate, it is possible for patients to have troublesome and severe symptoms with a well filling duodenal cap which may hide an ulcer in the postbulbar region. Generally speaking, every patient with a duodenal ulcer should be given a thorough trial of medical treatment. With patients with more than a two-year history the chance of getting a prolonged remission is probably less than 10 per cent, but with a short history or with patients with long remissions and those with obvious environmental factors which can be influenced, medical treatment should certainly be continued. A bias toward surgical operation is needed for patients with unusually severe pain, and particularly pain in unusual sites—such as through to the back—when the pain does not readily respond to ordinary medical measures, and when the complications of hemorrhage, perforation or stenosis have arisen. The combination of gastric and duodenal ulcer is also a further argument for operation.

Stomal Ulcer

The medical dividends are small but they do exist particularly when there has been some exogenous factor leading up to the breakdown, but in most cases partial gastrectomy or further partial gastrectomy with vagotomy is indicated, and, if ulceration then recurs, total gastrectomy.

The internist can play an important role, not only in medical management but also when operation is needed. All the surgical patients remain in my medical wards for their operation, and I assist in the prevention and control of respiratory infections and postoperative complications, and the maintenance of proper blood and electrolytic balances.

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Gastric and Duodenal Ulcer

The Surgeon's Approach

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• *A surgeon must have a clear conception of the indications for operation for either gastric or duodenal ulcer. He must realize that his indications must be modified by his operative mortality. The operation he carries out must be determined by several factors. It is the author's opinion that the various types of distal partial gastrectomy are those most likely to succeed and to produce the fewest undesirable postoperative sequelae.*

GASTRIC AND DUODENAL ULCER are entities which deserve separate consideration. Since a greater measure of disagreement attends the management of gastric ulcer, this type will be considered first.

It always has been a source of amazement that the methods of therapy in gastric ulcer can vary so widely, as described by various authorities throughout the country. This, if nothing else, proves that there is no fully accepted method, and that any statements—including this one—represent personal opinions. As a corollary it should be stated that such opinions throughout the country will vary, depending upon the relative abilities of the various members of the diagnostic and therapeutic team. This team must include gastroenterologist, radiologist, endoscopist, cytologist, anesthesiologist and surgeon. In centers where one of this group is dominant, the therapy of gastric ulcer is liable to become colored significantly by his opinion.

The surgeon's point of view of the therapy of gastric ulcer usually is extremely simple and probably is shared by most surgeons in this country. He believes that medical therapy of gastric ulcers is unsatisfactory except for the small proportion that are acute and heal rapidly under observation. Approximately 75 per cent are chronic or heal slowly or not at all, in a period of hospitalization. They should be treated by subtotal gastrectomy which not only promises a definitive cure of the ulcer if it is benign, but gives the only chance of cure if it is malignant.

This rather simple statement requires amplification in many respects. If it is to be accepted, it must be assumed that the operative mortality is considerably lower than the number of patients operated upon who actually have cancer rather than benign ulcer, for in only about half of the cases of cancer treated in this fashion will the patients survive five years. Furthermore, postgastrectomy symptoms must be infrequent, so that very few gastric cripples are produced.

These considerations apply to approximately 95 per cent of the cases in which the ulcer is in the distal portion of the stomach. Ulcers there can be excised by subtotal gastrectomy that is associated with a mortality of 1 to 2 per cent and with almost complete absence of postgastrectomy symptoms. Only rarely does an anastomotic ulcer develop later. All follow-up statistics to date have shown that postoperative results are excellent in 90 to 95 per cent of this group, which is significantly higher than for duodenal ulcers.

However, the 5 per cent of all gastric ulcers that originate in the juxta-esophageal area pose different problems. Here the operative mortality is higher and, if resection should involve a very high subtotal gastrectomy or total gastrectomy, the postoperative sequelae are liable to be very severe. Consequently ulcers in this area logically may be treated in a more conservative fashion. If all studies indicate the ulcer is benign, including cytological smears and gastroscopic biopsy, four to six weeks may be allowed for healing.

When the usual gastric ulcer is considered, operation is carried out at once if there is a history of chronicity or any concomitant complications such as severe hemorrhage, obstruction, penetration or perforation. For example, pain felt in the high lumbar area of the back, in the presence of a gastric ulcer, is usually due to penetration into the pancreatic capsule and should be treated by operation. In the case of the rare gastric ulcer that is entirely asymptomatic and is diagnosed for the first time by x-ray examination, operation should be done at once because of the chances of malignant disease. Ulceration, in the presence of complete histamine achlorhydria, also indicates operation, as does any

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Guest Speaker's Address: Presented as part of a Symposium on Peptic Ulcer before a Joint Meeting of the Sections on General Medicine and General Surgery at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

gastric defect in a patient with pernicious anemia.

In the remaining cases there is a short history, usually of pain alone. The patients should be hospitalized and treated vigorously by a gastroenterologist. Cytologic studies and gastroscopy must be done and any evidence of cancer demands immediate operation. If such evidence is not present, operation should still be carried out unless significant progress toward healing is observed at a second examination 10 to 14 days later. If the ulcer heals completely in four to six weeks of conservative therapy, follow-up examinations are mandatory and any recurrence should be treated by operation.

CHOOSING THE OPERATION

The surgeon, then, should bear the responsibility of the treatment of about three-quarters of all cases of gastric ulcer. Let us assume then that operation is being carried out for a gastric ulcer and according to all methods of study it is benign. How shall he conduct the operation?

Here again it is wiser to divide cases into two groups, those in which the position of the ulcer indicates it can be treated by distal partial gastrectomy, and those in which the lesion is juxtaesophageal. As to ulcers in the distal stomach, it might be recalled that several years ago it was said that an operation for gastric ulcer should be the same as that for gastric cancer. Since that time so many radical and even preposterous operations for cancer of the stomach have been proposed, that this old statement is meaningless. A more exact description now is necessary. If the ulcer has not penetrated the wall of the stomach, subtotal gastrectomy should be carried out, removing the lymph nodes along both curvatures, and the greater and lesser omentum. While a margin of 5 cm. above the ulcer is desirable, it is not essential.

The stomach, however, is divided with the actual cautery. The resected stomach should then be examined by a pathologist by a frozen section if possible. In this way, in the very unusual case in which cancer is found and an insufficient amount of gastric wall has been removed, a higher resection is carried out and the anastomosis completed.

Not infrequently the ulcer will have perforated onto the body or tail of the pancreas. Here the surgeon may prefer to open the stomach, inspect the lesion within, take a specimen for biopsy and be guided in the extent of the resection by the pathologist's report. In case of doubt, it is advisable to adopt a conservative approach. Cancer of the stomach that involves the pancreas is practically never cured. On the other hand, to resect a portion of the pancreas in a case of benign ulcer may result in the death of the patient or in difficult convalescence when otherwise there might have been prompt recovery.

As to ulcers in the juxta-esophageal area, opinions are in a state of flux. Let us assume again that all preoperative studies have indicated a benign ulcer. Some years ago it appeared that the answer to this problem would be a proximal partial gastrectomy. This necessarily involved bilateral vagotomy, resection of the cardia and anastomosis of the esophagus to the antrum of the stomach. The end results of this operation as performed in the Massachusetts General Hospital for benign ulcer were presented recently by Sweet.[13] They indicate, just as do other reports from different sections of the country, that the mortality is relatively high and that postresection symptoms are not uncommon.

Recourse therefore should be had to a different type of operation, and the best one at present appears to be that described by Madlener.[9] Here the high gastric ulcer is not removed, but a distal subtotal gastrectomy is carried out. Healing results later because the gastric antrum and much of the acid-secreting area have been removed. This operation has given uniformly good results when it has been done for ulcer according to Maurer[10] and Colp,[5] each of whom has reported a significant number. It obviously has given uniformly bad results when it has been carried out for cancer; hence, intragastric biopsy and frozen section should be employed in every case in which this operation is used. Postoperatively careful x-ray examination and follow-up observation are necessary to be sure that the lesion heals.

DUODENAL ULCER

Duodenal ulcer poses a different problem than gastric ulcer. Here there is some disagreement among physicians and surgeons about the patients who require operation. There is even more internecine warfare among surgeons about the selection of the type of the operation that is to be carried out.

It is not easy to deal succinctly with the various indications for operation for duodenal ulcer. The problem is simplified if discussion of the emergency operations for suture of perforations is omitted and consideration is given only to operations performed for definitive cure of the ulcer. Attention should be called again to the very complete and important study carried out by Moore[11] and associates at Massachusetts General Hospital a few years ago. Every patient who entered the ward service between 1942 and 1946 was followed carefully up to mid-1949. It was found that the mortality rate of those treated by subtotal gastrectomy was 2.86 per cent. This was an operative mortality and occurred at once. The mortality rate of those treated conservatively, surprisingly enough, showed no significant difference, but was due to the complications of ulcer spread over a five-year period. Meanwhile, those treated by subtotal gastrectomy were, except for a very small percentage, asymptomatic, leading active lives; of those treated conservatively, about three times as many had an unsatisfactory result in symptomatic or economic terms. Moore and associates then attempted to define the patient with "virulent" ulcer, who ought to have operation without delay. It is possible to pick out, by their definition, many patients who should have operation but are limping along on a conservative regimen, living for their ulcers, rather than leading normal lives.

In brief it seems logical that patients with a duodenal ulcer who fall within any of the following categories should have a definitive operation for cure unless operation is contraindicated by other considerations: (1) Those who have had a perforation and a prolonged period of ulcer symptoms before or after the perforation. (2) Those who have had an attack of obstruction or in whom severe deformity of the duodenum is observed roentgenographically. (3) Those who have had a single massive hemorrhage or two or more moderate ones. (4) Those who have had to be hospitalized two or more times for the treatment of pain, or who continue to suffer despite careful attention to a gastroenterologist's advice. It is also of interest that in the previously mentioned report by Moore and coworkers, it was noted that persons in whom ulcer symptoms developed before the age of 20 or after the age of 70 also usually had "virulent" ulcers.

From these indications it is apparent that many more patients with ulcer should be operated on without delay, yet many physicians, and surgeons as well, are a little more conservative in their approach. There are many patients who, on the appearance of the first symptoms of ulcer, rush to a surgeon. It would seem a good general rule that for such patients operation should usually be avoided, for they vision operation as an immediate escape from their underlying difficulties and assume that once they have recovered from the operation they will be normal again. They will be sadly disillusioned. In general terms a patient should be made to understand his ulcer diathesis and learn how to treat it before operation is carried out. It might be stated parenthetically that a certain period of suffering before operation results in much more gratitude to the surgeon and fewer complaints after the operation.

One must not forget that an ulcer is merely an accompanying finding in many patients with psychoneurosis or, as Sarah Jordan has said, the patient is intractable, rather than the ulcer. Although their complaints may be epigastric, proper surgical treatment for ulcer will not cure them. Whenever compensation neurosis is suspected, the surgeon should not be too aggressive. A very interesting note in this regard was supplied by Carmody,[4] who reported that two patients with very severe symptoms from duodenal and anastomotic ulcers had lobotomy and the ulcers then healed rapidly.

SELECTING OPERATION FOR DUODENAL ULCER

Assuming that an operation is to be done, let us now consider the type of operation to be carried out. The surgical literature is now full of claims and counter-claims and several new operations are being tested. It is no wonder that young surgeons are confused completely as to the approach to any specific case.

To make the author's position clear at once, let it be noted that he is biased in his opinion, probably no more so than anyone else, but definitely biased. He believes a distal partial gastrectomy in which not over 75 per cent of the stomach is removed is a wonderfully effective operation. He recalls a host of unbelievably grateful patients. The words of an internist who has observed many of these patients for many years after operation sound more than faintly musical when he says that subtotal gastrectomy is the finest operation ever performed by the abdominal surgeon. He is sure that many of the complaints about the operation have been exaggerated. Every medical student can recite all the variations of the dumping syndrome, listing enough symptoms so that if they all were significant a good proportion of so-called normal persons must have the condition. The surgeon agrees that the patient who has had a subtotal gastrectomy and flushes after he has had a glass of chocolate milk, has a variant of a dumping syndrome; but the surgeon is not sure that it is important, particularly if the patient has been relieved of his serious symptoms—and does not like chocolate milk. The surgeon hears that his patients cannot gain weight after a gastrectomy, despite voracious appetites. As a philosopher he may look at his own expanding anatomy, view his innumerable obese patients who are condemned to live on salads and wonder which people are happiest.

On the other hand, even though the complaints about gastrectomy have been exaggerated, every surgeon will admit that there are a few patients who are unhappy after it. In a series of patients followed by the author several years ago, excellent or very satisfactory results were noted in approximately 88 per cent of those who had had this operation. Anastomotic ulcers developed in 3 per cent of the patients, 3 per cent had an attack of postoperative bleeding without known source and 3 per cent had severe weight loss or various troublesome digestive symptoms including the dumping syndrome. As time went by the patients with digestive symptoms improved. For example, a woman who had been coached by her two physicians for nearly two years about the dumping syndrome before gastrectomy, took exactly two years to get over it following operation, and from then on she was entirely asymptomatic.

It is a personal opinion, and this is not susceptible of proof, that one of the reasons partial gastrectomy is regarded with disfavor in some quarters is that such radical resections have been performed in some localities that postgastrectomy symptoms have overshadowed the benefits of the operation. The greater the amount of stomach removed, the less is the chance of stomal ulcer, but also the greater the chance of postgastrectomy symptoms or severe weight loss. The surgeon must attempt to leave enough stomach to strike a balance; it is very rarely that over 75 per cent should be removed. It should be less if the patient is a woman, or one who has always been thin or who has a greatly distended stomach at the time of the operation. If symptoms are out of proportion to the amount of pathologic change demonstrated—as, for example, when very little deformity is shown by x-ray or at operation despite a history of many years — the resection should be more conservative.

NEW COMBINATIONS

The question then arises as to whether or not a more satisfactory operation than partial gastrectomy has been devised. Out of some fifteen operations that have at one time or other been used for ulcer, the greatest interest, of course, has attended the operation of vagotomy. The emphasis upon this operation has gradually shifted. Vagotomy alone soon was abandoned. The next modification was that of vagotomy and a short posterior gastroenterotomy. Because of Dragstedt's[6] enthusiasm, some surgeons still employ it. The author's results have not been good with either; results were unsatisfactory in 40 per cent of a series of 27 cases in which the operation was done in 1946 to 1947, so the operation was discontinued except for anastomotic ulcer. A recent follow-up observation of a patient typifies the reasons for this discouragement. Almost absolute atonicity of the stomach developed after vagotomy and posterior gastroenterostomy, and no acid secretion occurred after intravenous administration of insulin. Five years later the patient reentered the hospital with serious bleeding from a reactivated duodenal ulcer and the stomach contained 60 units of free acid after histamine was given. A recent complete follow-up of the entire Massachusetts General Hospital series of 132 cases by Brooks and Moore[3] led them to believe that the operation should be abandoned.

Most hopeful of the new operations is a combination of a relatively conservative resection with a vagotomy, as advocated by Smithwick.[7] He expressed the hope that it will combine the good features of both—that is, prevention of loss of weight and a reduction of the dumping syndrome. It is to be hoped that it will do that rather than combining the bad features, namely, the higher operative mortality of gastrectomy and the occasional persistent diarrhea following vagotomy. A few more years will be necessary to evaluate it as well as other operations being carried out in various sections of the country.

Harkins'[8] emphasis on extension of the Billroth I operation is very important, especially with regard to thin or female patients. It is certainly applicable to many gastric ulcers, but has not been accepted generally for duodenal ulcers. Wangensteen's operations that are designed to reduce the acid-secreting areas of the stomach, as well as other experimental procedures that are being carried out elsewhere, will be watched with great interest.

Theoretically, a combination of 75 per cent gastrectomy and vagotomy should provide the greatest protection against recurrence of ulcer. Several series of these operations have been compared with a central series in which the vagotomy had been omitted. A typical study was one reported by Palumbo.[12] He found that achlorhydria was produced regularly by the combined operation but that the persistent diarrhea that often followed vagotomy made its addition to subtotal resection questionable.

Meanwhile, the surgeon who wishes to use the best method to cure his patient of duodenal ulcer had better apply accepted techniques. Recently an eminent gastroenterologist characterized surgeons as the greatest faddists in the whole field of medicine. He is probably correct, and, for the moment, let us not be swept off our feet by all of these new developments. So many operations for duodenal ulcer have come and gone that some which now seem very attractive may be based on fancy rather than on fact. It may be that the surgeon who chooses partial gastrectomy—the same operation now that he did a decade ago—may not be doing so simply because he is so obtuse that he cannot see anything better. He may actually be a little closer to the answer.

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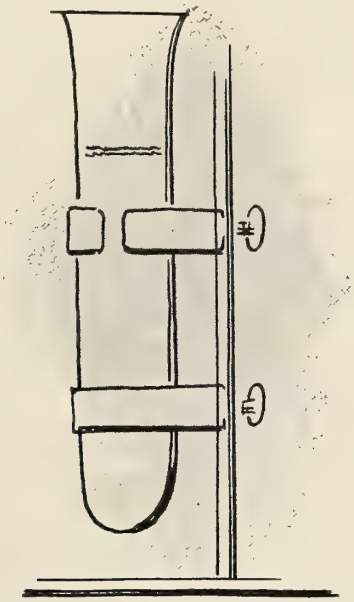

Megaloblastic Anemia

Associated with Surgically Produced Gastrointestinal Abnormalities

JAMES A. HALSTED, M.D., Syracuse, N. Y.

• *Two of the mechanisms for vitamin B_{12} deficiency, leading to megaloblastic anemia, are the result of surgically produced abnormalities of the gastrointestinal tract. The basic mechanism is different for each lesion.*

Total gastrectomy results in complete lack of intrinsic factor which is necessary for vitamin B_{12} absorption. It is believed that if patients survive long enough and are not given prophylactic vitamin B_{12} therapy, all would develop megaloblastic anemia.

Intestinal anastomosis leading to stasis of intestinal contents, with overgrowth of bacteria may cause vitamin B_{12} deficiency through bacterial interference with the utilization of vitamin B_{12}.

Use of radioactive vitamin B_{12} (cobalt^{60}-labeled B_{12}) has led to a better understanding of the pathogenesis of both types of megaloblastic anemia. The radioactive vitamin provides a useful tool for study of its absorption from the gastrointestinal tract.

THE OBSERVATIONS of Minot[14] in 1926 that hematologic improvement occurred in patients with pernicious anemia who were fed large amounts of liver started a series of investigations to determine the mechanisms involved in this fundamental clinical discovery. As a result of extensive clinical and biochemical studies over the succeeding 25 years it has been established that hematopoiesis is concerned with nucleoprotein metabolism, and that the vitamins, folic acid, ascorbic acid and vitamin B_{12} are all involved in very complex interrelationships concerned with nucleic acid chemistry.

Megaloblastic anemia may occur as a result of several fundamentally different mechanisms whereby a deficiency of either folic acid or vitamin B_{12} is brought about. Two of these mechanisms, both of which are incident to surgical operations on the gastrointestinal tract, will be dealt with in this presentation. Megaloblastic anemia may result from total removal of the stomach, and it may also occur after operations on the intestine where a blind loop of bowel is produced in association with intestinal anastomosis. When megaloblastic anemia occurs after either of these two surgical procedures, it is usually the result primarily of a deficiency of vitamin B_{12} rather than of folic acid. In most of the reported cases, pronounced reticulocyte responses occurred upon treatment with vitamin B_{12} parenterally. However, the mechanism whereby vitamin B_{12} deficiency occurs is a basically different one for each of the two surgically produced abnormalities. Although megaloblastic anemia resulting from total gastrectomy, or from the formation of an intestinal blind loop, is a rare occurrence, special studies with a few cases have thrown new light on the pathogenesis of the anemia in each instance and have contributed somewhat to understanding of hematopoiesis in general.

A valuable tool became available with the report of Heinle and co-workers[9] that cobalt^{60}-labeled vitamin B_{12} could be used to trace the absorption of this vitamin from the intestinal tract. Using a method whereby fecal excretion is measured after oral administration of 0.5 microgram of radioactive vitamin B_{12}, the author studied its absorption in 12 patients who had had a total gastrectomy and in three patients who had megaloblastic anemia associated with intestinal anastomosis and blind loop formation.

MEGALOBLASTIC ANEMIA FOLLOWING TOTAL GASTRECTOMY

Castle's[4] experiments 25 years ago led to the concept that pernicious anemia is caused by deficiency of a gastric or "intrinsic" factor. Normally this reacts with a food or "extrinsic factor," and this reaction is necessary for normal erythrocyte formation. The extrinsic factor is now known to be vitamin B_{12}. The nature of intrinsic factor is not yet known precisely, although extracts of hog stomach mucosa[18] have now been fractionated and concentrated to such an extent that as little as 2 mg. mixed with vitamin B_{12} will result in a hematopoietic re-

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TABLE 1.—*Absorption, in persons used as controls, of 0.5 microgram of orally administered cobalt^{60}-labeled vitamin B_{12}, as measured by subtracting fecal excretion from the oral dose.*

Case No.	Age	Diagnosis	Absorption Per Cent
1	37	No disease	59
2	64	Arteriosclerosis	74
3	31	No disease	80
4	48	No disease	70
5	48	Hypogonadism	71
6	32	No disease	67
7	45	Obesity	55
8	51	Dystrophia myotonia	67
9	30	No disease	68
10	34	Reiter's syndrome	81
11	24	Rheumatoid arthritis	43

Average absorption = 68 per cent

sponse when given orally to a patient with pernicious anemia in relapse. The exact mechanism whereby intrinsic factor exerts its effect is not known with certainty, but all the evidence indicates that it is necessary to enable vitamin B_{12} to be absorbed across the intestinal membrane.

Since 1929 a controversy has existed as to the site of origin of the intrinsic factor in man. It is known that in swine it occurs in the duodenum as well as the stomach, and for this reason it has long been thought by many hematologists to be present there in man, perhaps being secreted by Brunner's glands. This belief was strengthened by the fact that pernicious anemia does not develop in many patients who have had total gastrectomy, although it might be expected to develop in every case of total extirpation if the intrinsic factor were secreted nowhere but in the stomach.

Recent experiments[9] with radioactive vitamin B_{12} have shown that patients with pernicious anemia do not absorb it. Essentially the entire test dose can be recovered in the stools. However, when it is administered with normal human gastric juice, absorption becomes perfectly normal. The author also has noted these phenomena (Chart 1).

Absorption of vitamin B_{12} in a normal person is very limited. No matter how large a dose is given not much more than 1.5 micrograms can be absorbed.[18] In studies by the author it was observed that with a test dose of 0.5 microgram of cobalt^{60}-B_{12} the average amount absorbed in 11 persons was 68 per cent, the greatest absorption being 81 per cent and the lowest 43 per cent (Table 1). Almost identical data were reported by Callender, Turnbull and Wakisaka.[1] The reason for this extreme limitation of absorption of vitamin B_{12} is not yet known.

In studies of 12 patients who had had total gastrectomy[7, 19] it was noted that they had absorption of radioactive vitamin B_{12} almost identical with the absorption of patients with pernicious anemia. In every instance essentially the entire test dose of 0.5 microgram could be recovered in the stools. When normal human gastric juice was given with it, normal absorption occurred (Chart 2). Similar observations were made by Callender and co-workers[2] and by Ley.[10] Thus it appears that the site of origin of intrinsic factor in man is limited to the stomach. If it were produced in the duodenum or elsewhere in the gastrointestinal tract there should be some absorption of vitamin B_{12} as measured by the fecal excretion test with cobalt^{60}-B_{12}. Furthermore, megaloblastic anemia should not occur after total gastrectomy.

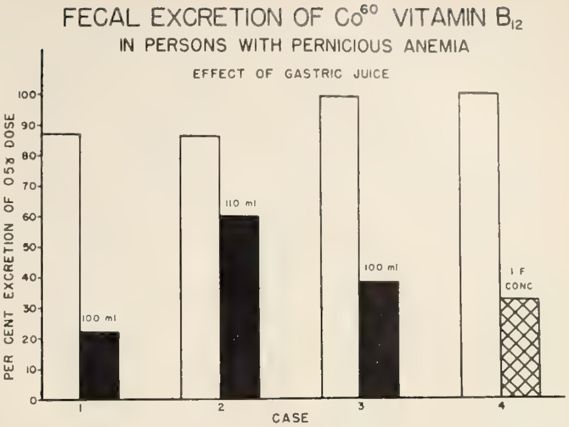

Chart 1.—Fecal excretion of cobalt^{60}-B_{12} in pernicious anemia (white columns), and the effect of normal human gastric juice (cases 1, 2 and 3), and of an intrinsic factor concentrate* (case 4), on excretion (black columns).

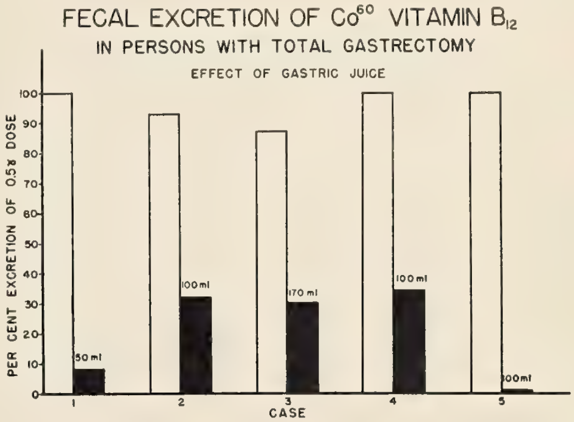

Chart 2.—Fecal excretion of cobalt^{60}-B_{12} in five patients who have had a total gastrectomy (white columns), and the effect of normal human gastric juice on excretion (black columns). Seven additional patients with total gastrectomy, similarly studied, showed identical patterns of excretion.

However, anemia that is indistinguishable from Addisonian pernicious anemia may develop. Combined system disease may occur as well as the other symptoms. The condition of the bone marrow and of peripheral blood are those of pernicious anemia. Since patients who have had total gastrectomy do not absorb any vitamin B_{12} from dietary sources, the question arises why megaloblastic anemia does not always follow total gastrectomy. There are four factors in the overall situation which adequately explain this paradox:

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*Supplied by Dr. R. W. Heinle, Upjohn Company.

1. *Survival after the operation.* Total gastrectomy has been in wide use for only about ten years. The operative mortality rate is around 10 or 15 per cent, and survival longer than three years after operation for carcinoma (the indication in most cases) is about 20 per cent. Thus not many patients survive long enough for megaloblastic anemia to develop.

2. *Interval before development of anemia.* It may be that stores of vitamin B_{12} in the liver are sufficient for the patient's needs for several years. The daily human requirement of the vitamin is not more than 1.0 microgram. Assay of liver slices taken at autopsy showed that the human liver contains, on the average, about 1.2 milligrams of B_{12}[20]—enough to last almost four years. In pernicious anemia when therapy is stopped it has been shown that relapse may not occur for as long as three years.[15] Analysis of 46 cases of total gastrectomy by MacDonald and co-workers[13] revealed that megaloblastic anemia developed in 12. The anemia appeared four years or more after operation in nine of these cases.

3. *Completeness of gastrectomy.* Sometimes it is technically difficult to transect the cardiac end of the stomach above the cardioesophageal junction. Sometimes 1 to 2 cm. of cardia may be left in situ, yet the case be reported as one of total gastrectomy. Since in man the cardia is an active site of secretion of intrinsic factor a small amount left behind might provide an amount of intrinsic factor adequate for normal utilization of vitamin B_{12} contained in the diet.

4. *Prophylactic therapy.* It has been observed that even if prophylactic injections of liver extract or vitamin B_{12} are not advised by the surgeon, patients almost always receive multivitamin capsules. Many of these preparations contain folic acid, which would prevent megaloblastic anemia for some time. Many preparations now contain B_{12} and intrinsic factor concentrates. Only one of the 12 patients studied by the author had megaloblastic anemia but nine had received prophylactic therapy.

The patient with anemia was a 59-year-old man who had total gastrectomy in 1949 for carcinoma. Except for weight loss of 40 pounds which he could not regain he remained entirely well until September 1953, when he began to feel weak. Weakness progressed until the patient was admitted to the hospital in May 1954 with pronounced anemia. The hemoglobin content was 5.5 gm. per 100 cc. and erythrocytes numbered 1.39 million per cu. mm. There were no neurological abnormalities. The bone marrow was megaloblastic. The mean corpuscular volume was 109 cu. microns, mean corpuscular hemoglobin 35 micromicrograms per cell, and mean corpuscular hemoglobin concentration 32 per cent. A reticulocyte response of 30 per cent occurred on the sixth day of B_{12} therapy. Folic acid given later produced no additional response (Chart 3). Fecal excretion of cobalt^{60}-B_{12} was 95 per cent, but only 49 per cent was excreted when an intrinsic factor concentrate was administered with the test dose of radioactive vitamin B_{12}.

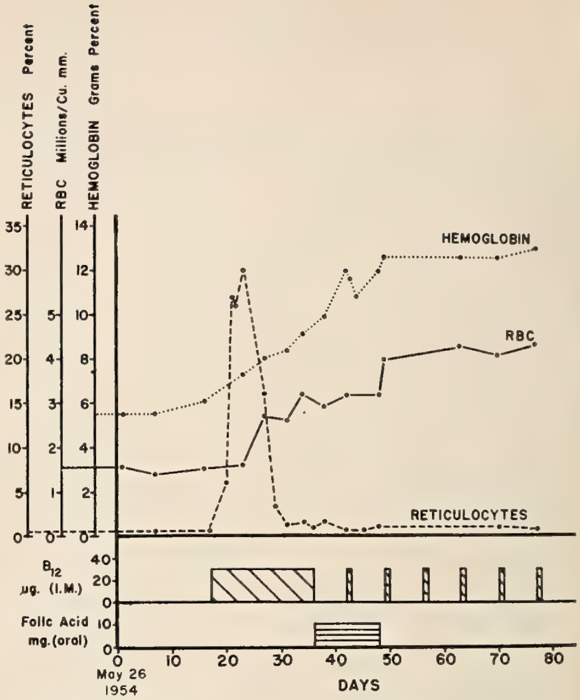

Chart 3.—Patient with severe megaloblastic anemia occurring four and a half years after total gastrectomy for carcinoma. Effect of vitamin B_{12} therapy on reticulocytes, hemoglobin, and erythrocytes.

Considering the small number of patients who survive total gastrectomy long enough for megaloblastic anemia to develop, and considering the widespread use of antianemic medications, the rarity of megaloblastic anemia after the operation is not surprising. The evidence indicates, however, that every patient who does survive long enough and who does not receive prophylactic therapy will develop megaloblastic anemia indistinguishable from Addisonian pernicious anemia. An injection of 30 micrograms of vitamin B_{12} once a month would be adequate to prevent anemia indefinitely, and may be recommended as sound practice.

MEGALOBLASTIC ANEMIA ASSOCIATED WITH INTESTINAL ANASTOMOSES

In 1895 Faber[5] reported the case of a young woman in whom pernicious anemia was associated with intestinal stricture. In 1929, Little, Zerfas and Trusler[12] found the characteristic clinical picture of pernicious anemia in a young man who had had several operations to cure an intestinal fistula following acute appendicitis. The operations resulted in anastomosis between jejunum and ascending colon, forming a blind loop of intestine and causing stasis of intestinal contents. Up to the present, reports of 79 cases can be found in the literature,[8] in which megaloblastic anemia is associated either with an intestinal stricture or surgically produced anastomosis which leaves a blind loop of gut. The common denominator appears to be the presence of an anatomical abnormality which causes stasis and stagnation of intestinal contents.

The anemia brought about in such cases is indistinguishable from Addisonian pernicious anemia. Glossitis, icterus and combined system disease have all been observed in this syndrome. However, both hydrochloric acid and intrinsic factor have been demonstrated repeatedly in the gastric juice. Thus the mechanism for the development of the anemia is not a lack of intrinsic factor as in pernicious anemia or the megaloblastic anemia of total gastrectomy. In many of the reports of recent cases it was noted that the patient responded to parenteral therapy with vitamin B_{12}. Surgical correction of the lesion that causes intestinal stasis may result in permanent cure of the anemia.

What the mechanisms are that bring about the anemia in such circumstances has been conjectural until recent years. One theory is that intestinal absorption is defective, as in sprue. However, steatorrhea is uncommon, and studies have demonstrated good absorption of fat and glucose. Thus it does not seem likely that this is the correct explanation. Beginning with Faber's case a luxuriant growth of bacteria throughout the small bowel above the stricture, or in the stagnant areas, has been noted often at autopsy. Faber suggested that the anemia was caused by absorption of a poison from the stagnant bowel contents. The anemia has been experimentally produced in dogs by bringing about intestinal strictures[16] and in rats after the construction of retroperistaltic blind pouches of small intestine.[3, 21] These observations indicate that intestinal bacteria have adverse effect on hematopoiesis.

With the advent of antibiotics it has been possible to investigate certain relationships between bacteria and hematopoiesis. Thus Lichtman and co-workers[11] obtained definite although suboptimal hematologic responses in pernicious anemia from aureomycin administration. In East Africa certain kinds of megaloblastic anemia were found to respond dramatically to oral administration of penicillin alone.[6] Finally two patients with megaloblastic anemia associated with intestinal anastomoses, studied in Finland, were treated with aureomycin and terramycin, and pronounced reticulocyte responses occurred.[17]

The author has observed three patients during the past year with megaloblastic anemia associated with intestinal stasis. Each had complete hematologic response to parenteral vitamin B_{12} therapy. Summaries of these cases follow:

CASE 1. A 19-year-old boy was admitted to Harbor General Hospital* with characteristic signs and symptoms of combined system disease and mild megaloblastic anemia. The anemia and all the neurological signs disappeared upon administration of vitamin B_{12}. At the age of ten the patient had had appendectomy followed by intestinal obstruction. He then had intermittent abdominal cramps until intestinal resection was performed at the age of 15. The exact nature of the anastomosis could not be ascertained. Following this the patient was entirely symptom-free until the anemia, with neurological disturbance, developed.

CASE 2. A 24-year-old Mexican man who worked in a hospital laboratory had several operations for intestinal obstruction and to correct internal fistulae which developed after appendicitis at the age of 13. The patient then was entirely well until ten years later, when weakness, pallor and soreness of the tongue developed. Studies revealed severe anemia and free hydrochloric acid in the gastric juice. Megaloblastosis was noted upon study of bone marrow aspirate. The patient was treated for six months with parenteral injection of B_{12} and symptoms were completely relieved. The injections were stopped and he remained well for 16 months. Then weakness and soreness of the tongue recurred. The patient was admitted to Wadsworth Veterans Administration Hospital in January 1954. Upon examination at that time, pallor and mild icterus were noted. Results of a neurological examination were within normal limits. The icterus index was 23 units at the time of admittance. Later it declined to 9 units. The result of an oral glucose tolerance test was normal. The hemoglobin content of the blood was 6.4 gm. per 100 cc. Erythrocytes numbered 1.8 million per cu. mm. and the packed cell volume was 19.5 per cent. The mean corpuscular volume was 108 cu. microns, the mean corpuscular hemoglobin 35 micromicrons and the mean corpuscular hemoglobin concentration 30 per cent. A barium study of the small bowel revealed dilated loops of ileum with stagnation of barium in the pelvic portion of the ileum for 24 hours. The patient was treated with vitamin B_{12}. Reticulocyte response of 16 per cent occurred and complete recovery ensued. At last report the patient was entirely well and was receiving 30 micrograms of B_{12} intramuscularly once a month.

CASE 3. A 60-year-old man had extensive diverticulosis of the entire small intestine. In 1949 a jejunal diverticulum perforated and a volvulus of

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*Dr. Nancy Landon at Harbor General Hospital made possible the studies on this patient.

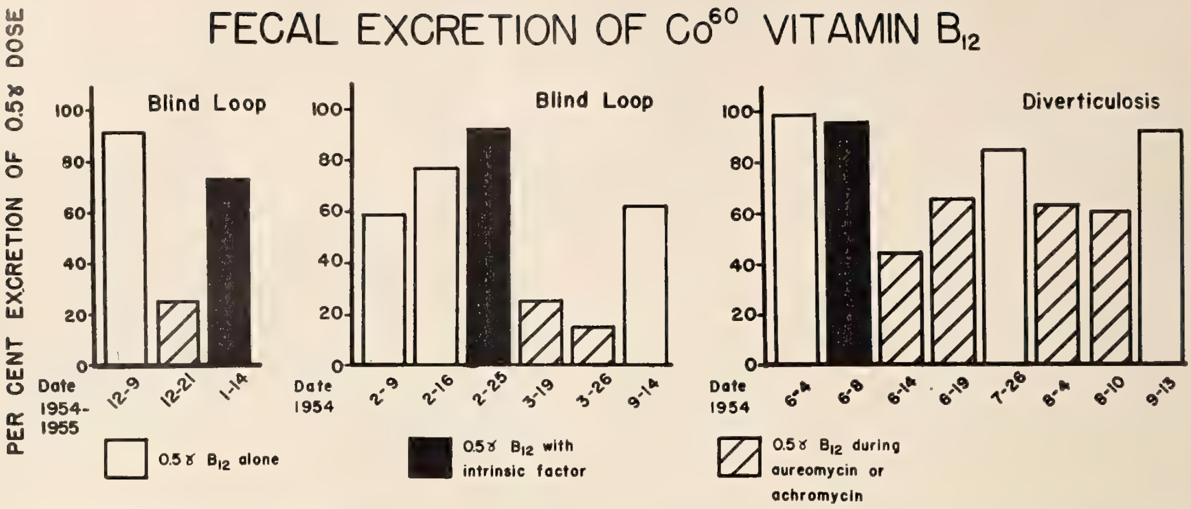

Chart 4.—Fecal excretion of cobalt^{60}-B_{12} in three patients with intestinal stasis. Two had blind loops, and one had diverticulosis of the small intestine. Note that excretion was very high. Intrinsic factor had no effect, but antibiotic administration resulted in significant decrease in excretion in all three.

the terminal ileum and cecum occurred. A resection of two feet of ileum with the cecum was performed, with end-to-side anastomosis of ileum to hepatic flexure. This resulted in a blind pouch of ascending colon.

In January 1952 the patient entered the hospital and was found to have mild macrocytic anemia. Upon examination of material from the bone marrow, megaloblastosis was noted. The hemoglobin content was 8.0 gm. per 100 cc. of blood, erythrocytes numbered 2.49 million per cu. mm. and the hematocrit 27 per cent. The mean corpuscular volume was 108 cu. microns, the mean corpuscular hemoglobin 32 micromicrons and the mean corpuscular hemoglobin concentration 30 per cent. Reticulocytes made up 0.4 per cent of total cells. There was free hydrochloric acid in the gastric contents. The stool did not contain an abnormal amount of fat. Treatment with vitamin B_{12} parenterally resulted in hematologic response, with reticulocytes increasing to 6 per cent of total cells. Folic acid was given to the patient later without further response.

Upon discharge the patient ceased taking vitamin B_{12} but continued to take folic acid orally. In May 1954 he was readmitted with recurrent diarrhea, pallor, weakness and weight loss of 25 pounds. Erythrocytes numbered 3 million per cu. mm. of blood, the hemoglobin content was 12.0 gm. per 100 cc. and the hematocrit was 33 per cent. Mean corpuscular volume was 110 cu. microns, mean corpuscular hemoglobin 40 micromicrons and mean corpuscular hemoglobin concentration 36 per cent. The result of an oral glucose tolerance test was normal. Vitamin B_{12} was given, 30 micrograms daily, and the reticulocytes rose to 4.8 per cent with a slow rise in hemoglobin, erythrocytes and hematocrit. Upon administration of aureomycin, diarrhea abated.

The foregoing clinical observations relative to the relationship of bacteria to hematopoiesis justify a hypothesis that an abnormal bacterial flora in the stagnant area of intestine may interfere with the utilization of vitamin B_{12}, resulting in B_{12} deficiency and megaloblastic anemia. In order to test this hypothesis the fecal excretion method for determining the absorption of radioactive vitamin B_{12} was used in the three patients with intestinal anastomosis. After the amount of cobalt^{60}-B_{12} excreted in the stools was measured, the patients were given either aureomycin or achromycin and the tests repeated. Two tests were done during the period of antibiotic administration in Cases 2 and 3, and one test in Case 1.

The results show that each patient excreted most of the test dose. However, they differed from patients with pernicious anemia in that intrinsic factor had no effect on absorption. During the administration of the antibiotic there was a pronounced decrease in fecal excretion in each case (Chart 4). The decreased excretion (or *increased absorption*) was much greater than variations found to occur spontaneously when tests were repeated in the same patient under the same conditions. In 14 patients in whom repeated tests were carried out the greatest variation was 18 per cent.

DISCUSSION

An explanation for the increased absorption of vitamin B_{12} and for the hematologic response which may occur in megaloblastic anemia during aureomycin administration is that bacterial competition for vitamin B_{12} is decreased. The impaired absorption of radioactive vitamin B_{12} might be explained by bacteria absorbing B_{12}, and thus denying it to the body. In these circumstances the radioactivity recovered would be largely contained in the bacteria passed out in the feces. Certain strains of E. coli have pronounced avidity for B_{12} even though it may not be a growth requirement for these strains.

Although this is a plausible explanation, others do exist and it is quite likely that the mechanism is more complex than simple bacterial competition. Further study will be required in order to clarify the matter.

An interesting similarity comes to mind between the megaloblastic anemia associated with intestinal stasis and that occurring with fish tapeworm (diphyllobothrium latum) infestation in Finland. In both diseases the clinical picture is identical with that of Addisonian pernicious anemia, yet free hydrochloric acid and intrinsic factor secretion are normal. The fish tapeworm anemia can be cured by getting rid of the worm, just as the megaloblastic anemia of intestinal stagnation can be cured by surgical correction of the underlying lesion or, apparently, by changing the bacterial flora with antibiotics. Finally, although the underlying factors causing the anemia (intestinal blind loop on the one hand, intestinal parasite on the other) are extremely common, vitamin B_{12} deficiency, leading to anemia, does not occur very often.

In the management of a patient with anemia caused by intestinal lesions it would seem logical to correct the anatomical abnormality surgically, but only if this appears to be technically simple. An injection of 30 micrograms of vitamin B_{12} once a month will control the deficiency which causes the anemia. In none of the three cases herein reported was it felt that operative correction of the intestinal abnormality was indicated.

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Chlorpromazine Alone and with Reserpine

Use in the Treatment of Mental Diseases

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• One hundred psychiatric patients were treated with chlorpromazine, alone or combined with reserpine. Fifty-six per cent of patients with chronic schizophrenic reactions showed moderate or pronounced improvement when treated with chlorpromazine alone. The results of treatment with the combined drugs were not so good as that. Indications are that treatment of patients with chronic schizophrenic reactions is more efficacious with these drugs than with other forms of somatic therapy.

Complications of treatment were far greater with combined use of chlorpromazine and reserpine. For this reason, the combination appears to have limited usefulness. The Parkinson syndrome was the most frequent complication of large doses of these drugs. It appears to be a toxic reaction, requiring reduction in dosage. Jaundice appears to be neither a frequent nor a serious complication of treatment.

TWO DRUGS of great promise in psychiatry recently appeared almost simultaneously. Chlorpromazine, a synthetic drug of the phenothiazine group, was initially introduced as a potentiating agent for anesthetic agents. Reserpine, a pure alkaloid of Rauwolfia serpentina, was produced primarily as a treatment for hypertension. Both drugs, although of different origin and chemical structures, have similar effects on the nervous system and on patients with mental disorders.

In the short span of its use in psychiatry, numerous favorable reports have appeared on the use of chlorpromazine.[3, 7, 10] Little has been written about the combined use of reserpine and chlorpromazine. This study is an assessment of the usefulness of chlorpromazine, alone and combined with reserpine, in psychiatric treatment.

METHOD OF STUDY

Chlorpromazine was used alone in 68 psychiatric patients and in combination with reserpine in 32 patients. The psychiatric diagnoses of patients treated with the single drug were chronic schizophrenic reaction in 50, personality disorder in three, psychotic depressive reaction in one, and various organic psychoses in 14. All the patients treated with the combined drugs had chronic schizophrenic reactions.

The 82 patients with chronic schizophrenic reactions ranged in age from 18 to 77 years; the median age was 34 years. Duration of illness varied between six months and 35 years. Forty-three of these patients had been ill for nine years or more. Sixty-six patients had received some somatic therapy before. Twelve had been treated with bilateral prefrontal leukotomy. The 14 patients with organic psychosis ranged in age from 57 to 80 years. Ten patients had chronic brain syndromes due to senile or arteriosclerotic brain disease, two were syphilitic, one was epileptic and one suffered from the effects of trauma.

Initial trials of treatment utilized the double-blind technique. In all patients except those with organic psychoses, treatment was initiated on a medical treatment ward. Forty patients, most of them schizophrenic, were treated with chlorpromazine or placebos. The dose used was 150 mg. intramuscularly for three to four days followed by oral doses of 100 to 400 mg. daily. Twenty-six patients, all schizophrenic, were treated with a combination of chlorpromazine and reserpine or identical placebos. Two dosage schedules were used: (1) Seven days of parenteral therapy with 50 mg. of chlorpromazine and 5 mg. of reserpine daily followed by oral doses of 200 mg. of chlorpromazine and 3 mg. of reserpine daily; (2) seven days of parenteral therapy with 100 mg. of chlorpromazine and 2.5 mg. of reserpine daily followed by oral doses of 300 mg. of chlorpromazine and 2 mg. of reserpine daily.

After treatment was under way, patients were returned to their usual wards. A preliminary evaluation was made by each patient's psychiatrist during the third week of the trial. Patients who had received active medication were continued on treatment, a flexible dosage schedule being used. Patients who had received placebos were started on the same schedules of active medication. Twenty-eight patients with organic psychosis were treated

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From the Veterans Administration Hospital, Palo Alto.

Chlorpromazine for these studies was supplied by Smith, Kline and French Laboratories; Reserpine by Ciba Pharmaceuticals, Inc.

TABLE 1.—*Results of double-blind studies on 66 patients with schizophrenic reactions treated with Chlorpromazine and combinations of Chlorpromazine and Reserpine*

Treated with	Improved	Unimproved	Worse	Total
Chlorpromazine	13	11	0	24
Placebo	3	15	0	18
Chlorpromazine-reserpine combination	9	6	2	17
Placebo	1	6	0	7

with a daily dose of 75 mg. orally of chlorpromazine or identical placebos. At the end of 40 days of treatment, an evaluation was made.

Longer term evaluations were made of patients after they had been on treatment with chlorpromazine alone for two to eight months. Most of these patients were started on parenteral doses of chlorpromazine followed by oral maintenance doses of 100 to 800 mg. daily. Only seven patients in this series received a daily dose of more than 500 mg. of the drug. In the case of patients receiving the combined drugs, an evaluation was made at the end of three to four months of treatment. Seventeen patients received the dosage schedule using higher doses of reserpine, while 15 patients received one using higher doses of chlorpromazine. Fifteen patients were not maintained on the combination for the entire course, but were switched to maintenance doses of one drug or the other. In all cases, the reason for this change was the development of some complication of treatment.

All evaluations were made by the psychiatrist familiar with the patient prior to treatment. In general, patients were considered to have shown slight improvement if they were appreciably less disturbed, required less sedation, seclusion or restraint, or could be moved to a ward with less severely ill patients. Criteria for the classification *moderate improvement* were: (a) No further requirement of seclusion or restraint and a markedly diminished need for other forms of sedation, (b) improvement in behavior which permitted the patient to participate in activities programs or group and individual psychotherapy, and (c) social improvement which made possible the granting of ground privileges or passes from the hospital for the first time. *Marked improvement* implied that the patient had made a great change according to the criteria listed above and that he was being considered for release from the hospital. The patients with organic psychosis were evaluated only in terms of whether the drug was satisfactory in controlling aberrant behavior.

RESULTS

The results of the double-blind studies in patients with chronic schizophrenic reactions are summarized in Table 1. The number of patients who improved on active medication was convincingly greater than the number who improved on placebos. Judging solely by the proportion of patients who improved in each group, it might be concluded that the combined drugs were at least as effective as chlorpromazine alone. However, the degree of improvement was frequently greater in the patients who received chlorpromazine alone. Two patients became temporarily worse when the combined drugs were used. A few other patients were so profoundly affected when the combination was used that it became obvious that they had received active medication rather than placebos. However, the evaluations made on these patients were as objective as possible.

TABLE 2.—*Results of treatment of 82 patients with schizophrenic reactions with Chlorpromazine and combinations of Chlorpromazine and Reserpine*

	Chlorpromazine Alone	Chlorpromazine-Reserpine Combination	Total
Unimproved	8	6	14
Slightly improved	14	16	30
Moderately improved	19	8	27
Markedly improved	9	2	11
	—	—	—
Total	50	32	82
Total with moderate or marked improvement	28 (56%)	10 (31%)	

The results of longer treatment of patients with chronic schizophrenic reactions are summarized in Table 2. Fifty-six per cent of patients treated with chlorpromazine alone showed moderate or pronounced improvement. Only 31 per cent of patients treated with the combined drugs showed similar degrees of improvement. Although patients treated with the combined drugs were not treated for as long a period, the dose of drug they received, on the basis of expected additive effect, was greater.

Thirteen of the 82 schizophrenic patients were allowed to leave the hospital for the first time on trial visits or leaves of absence. Others approached this degree of improvement. Only one of the 82 patients required treatment with electroconvulsive therapy along with the drug. Five of the 12 patients who had not responded to bilateral prefrontal leukotomy were moderately or considerably improved by the drugs.

Those schizophrenic patients who showed moderate or pronounced improvement were usually better than they had been at any time since their illness began. Often the change in patients was dramatic, both in the rapidity of onset and in the degree. However, in some patients improvement took a more gradual course. Delusions and hallucinations diminished considerably. Mute and apathetic patients often began to speak appropriately.

TABLE 3.—*Complications of treatment of 100 psychiatric patients with Chlorpromazine and combinations of Chlorpromazine and Reserpine*

Complications	Chlorpromazine Alone 68 Patients	Chlorpromazine-Reserpine Combinations 32 Patients
Parkinson syndrome	4	9
Excitements	0	7
Convulsions	3*	3
Jaundice	2	1
Reactivation of peptic ulcer	2	0
Skin eruption	0	1
Syncope	1	0

*One patient had previous seizures.

Severely disorganized speech gradually became more coherent. A few patients seemed to have amnesia for their illness, expressing astonishment upon hearing how long they had been hospitalized. The changes in physical appearance were also noteworthy. Nutrition was improved, dress became neater, and social amenities were restored. Most of these patients, who had previously spurned any psychiatric treatment, appeared now to be able to participate fruitfully in it.

The results of treatment of patients with organic psychosis using a daily dose of 75 mg. of chlorpromazine orally were not striking. Six of 15 patients who received active medication improved. However, three of 13 patients who received placebos improved. It was decided that a higher dose of the drug would be needed to treat patients in this group effectively. Seven of 14 patients who were then treated with a daily dose of 150 to 200 mg. of chlorpromazine showed satisfactory improvement. In general, the degree of disability shown by these patients was not greatly changed by this dose of the drug. In these older patients, higher doses of the drug were sometimes not well tolerated.

The results of treatment were disappointing in three patients with personality disorders and one patient with a psychotic depressive reaction. None of these patients was helped. Two of the patients with personality disorders became depressed from the drug. The patient with a psychotic depressive reaction was made worse, having more disturbing hallucinations.

Complications of treatment occurred with considerably greater frequency in patients who received combined treatment than in those who received chlorpromazine alone (Table 3). The frequent appearance of the Parkinson syndrome, excited states and convulsions is noteworthy in this group. Often two of these complications occurred simultaneously in the same patient, suggesting that all of them were related to the same toxic effect on the central nervous system. Among patients treated with chlorpromazine alone, these toxic effects occurred only when daily doses of 400 mg. or more of the drug were used. All of these side-effects were completely reversible by temporary interruption of treatment or by reduction in dosage.

The appearance of jaundice was not related to the dose of drug used. This complication occurred within nine to twenty-four days after treatment was begun. Two patients had prodromal symptoms of fever, gastrointestinal disturbances and malaise. Characteristic laboratory abnormalities were elevation of serum bilirubin, alkaline phosphatase, cholesterol and phospholipids. Only one patient had a laboratory sign of parenchymatous jaundice. In his case the result of a cephalin flocculation test was positive. Biopsy of the liver in this patient gave evidence of bile stasis and cellular infiltration around the biliary radicles. The longest duration of jaundice was three weeks, while in one patient jaundice disappeared in 48 hours. This latter patient had had viral hepatitis four years earlier and at that time jaundice had lasted for several weeks. (One patient, not in this series, has been successfully maintained on treatment with chlorpromazine after two brief episodes of jaundice.)

Other complications of treatment were infrequent. Skin eruptions occurred with less frequency than was anticipated. On the other hand, one patient with numerous infected lesions from compulsive scratching became completely free of lesions after treatment. Another patient with psoriasis was improved. Two patients with reactivation of peptic ulcers were continued on treatment by the addition of an ulcer regimen. Two patients died while under treatment, but in neither instance could the death be related to the drug. One patient drowned; the other had a ruptured abdominal aneurysm.

COMMENT

The effectiveness of chlorpromazine in psychiatric treatment cannot be doubted. Especially encouraging is the frequent amelioration of psychotic symptoms in patients with chronic schizophrenic reactions. In the present series 56 per cent of such patients were moderately or greatly improved by this drug. In a series reported elsewhere, 54 per cent of such patients treated with reserpine in combined parenteral and oral doses showed similar degrees of improvement.[4] Thus, in the authors' experience, both drugs have been equally effective in this most difficult group of patients. It should be emphasized that it is the practice of the authors to continue other forms of treatment while the patients are treated with drugs. Thus, these results represent more than the effects of the drugs alone.

The combination of chlorpromazine with reserpine does not seem to offer any advantage over the use of either drug alone. At lower levels of dosage, no advantage from the use of combined drugs as opposed to use of reserpine alone[5] was noted. In larger doses, use of combined drugs enhanced the toxic effects, particularly those affecting the central nervous system. Quite possibly there exists a middle range of dosage where the combination can be used effectively.[1] However, whether the combination is superior to equivalent doses of either drug alone is questionable.

There seems to be little indication for the use of chlorpromazine in patients with personality disorders or psychotic depressive reactions. In the latter patients, the authors agree with other investigators[6] that electroconvulsive therapy is the treatment of choice. While behavioral aberrations can be controlled in some patients with organic psychosis, there is little reason to believe that this drug can rehabilitate patients with advanced degrees of organic change.

Since the wide use of reserpine and chlorpromazine was begun at the Veterans Administration Hospital, Palo Alto, no patient has been subjected to leukotomy. The use of electroconvulsive therapy in the treatment of schizophrenic patients has diminished to the vanishing point. There is every reason to believe that the drugs are better than either of the other somatic therapies. The fact that almost half of a group of patients in whom leukotomy did not help obtained significant improvement from drug treatment tends to confirm this conclusion. On the other hand, more effective use of psychotherapy for schizophrenic patients now seems to be possible.

The importance of jaundice as a complication of chlorpromazine therapy seems to have been exaggerated. The incidence of 3 per cent in this series is higher than the over-all incidence of 0.9 per cent reported in 3,533 psychiatric patients who were treated with the drug.[9] In any case, the risk does not seem to be greater than the experience here reported would indicate. Furthermore, the jaundice is of mild degree and short duration. It resembles most of the jaundice produced by methyltestosterone.[8] As yet, there is no reason to believe that permanent hepatic damage ensues from this complication.

The production of the Parkinson syndrome by either chlorpromazine or reserpine, and particularly by the combined drugs, is a matter not to be treated lightly. All the evidence to date indicates that this syndrome represents a toxic effect of these drugs.[2] With the usual remedy for toxic effects, diminution of dosage, this phenomenon disappears. To continue treatment in the face of this syndrome may be courting disaster. There is a point at which physiologic effects may become pathologic changes. Until more is known about the implications of this complication, the utmost of prudence is indicated.

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Introduction to Muscle Relaxants

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• The first writings of curare appeared about 1500. Two hundred and fifty years later the first real experimentation took place with the drug and an additional two hundred years elapsed before the drug found its true place in medicine. During the past decade it has become a valuable drug in anesthesia.

The muscle relaxants have been divided into two groups according to their action — the curare-like or competitive inhibition blocking group, and the C-10-like or depolarizing blocking group. They act at the myoneural junction to produce relaxation with very little effect on the remainder of the body. In recent years the synthetic curare-like drugs have overshadowed purified curare.

ALTHOUGH TODAY many drugs can be classified as muscle relaxants, it was but a short time ago that curare was the only agent generally thought of in this regard—and only a relatively few years have passed since even curare was, to most persons, only a deadly poison used by South American Indians on the tips of arrows. *Curare* is an English word,[10] and attempts to trace its origin become quite confusing. Some investigators think that the original word was *uirery*—taken from *uira*, meaning *bird*, and *eor*, meaning *to kill*. Others believe it comes from *urari*—taken from *ur*, meaning *to come*, and *ar*, meaning *to fall*. Still others feel it comes from Curwara[3]—the name of a river in Guiana. Many referred to the drug as "wouralia."

The first writings of curare, at about the beginning of the Sixteenth Century, were by D'Anghera,[10] an Italian living in Spain who got his information from sailors returning from the Americas on the original Columbus expedition. Certain conclusions can be drawn from these early writings. First, several types of arrow poisons were known. The leaves,[14] stems, roots and bark of many plants were used to make water extracts and hence there was great variety in potency. For many years three main types[10] were known—tubocurare, calabash curare and pot curare—the designation depending on the type of containers in which the preparations were stored; that is, bamboo tubes, gourds or earthenware pots. The drugs[14] themselves might or might not be the same; the distinction was not between drugs but between containers. This, of course, led to many discrepancies in experimental work throughout the years.

Through D'Anghera's[10] writings one finds also that cauterization of wounds that were caused by arrows dipped in curare was practiced by the natives, and it was thought that some of the tribes had an antidote. Some of the early so-called antidotes were tobacco, salt, salt water, urine and sugar. All of them and others besides were put immediately into the wound in the hope of preventing death.

Many weird tales[10] arose about the ingredients of this poison. Some of the ingredients were thought to be teeth and livers from venomous snakes, red peppers and stinging ants. Because of the suspicious nature of the natives, it was not until about 1839 that a foreigner, Richard Schomburgk, was allowed to witness the preparation of the deadly arrow poison. It was his opinion that *Strychnos toxifera* was the plant from which came the active ingredient.

Sir Walter Raleigh[10] is given credit for taking the first curare to Europe (in 1584) and presenting it to Queen Elizabeth. McIntyre, a pharmacologist, believes this to be false and blames Munter's misreading of Caley's "Life of Raleigh" for this misconception.

The first real experimentation with the drug was carried on in 1745 by De la Condimine.[3] Searching for an antidote, he used sugar and obtained, he thought, a certain degree of success.

Fontana[3] in 1781 made several important observations. Some of these were: (1) That vapors from the extraction process were not harmful; (2) that acids and alkalies were not antidotes; and (3) that voluntary muscle irritability is destroyed.

In 1811 Brodi and Bancroft[3] were first to observe the effects on respiration and first to support life in a curarized subject with artificial respiration in the form of a bellows connected to a cannulated trachea.

In 1821 Humboldt[10] reported the subjective symptoms in Indians who recovered from poisoning. These symptoms were "congestion of the head," vertigo, nausea and vomiting, extreme thirst, and numbness about the wound.

About 1814 Waterton[10] gave an ass wourali in the shoulder and after the animal apparently died,

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revived it with artificial respiration by attaching a bellows to the windpipe. After four hours the animal finally took over respiration on her own and survived the ordeal although she was "lean and sickly for about a year." She was given the name "Wouralia" and sent from London to a farm in the country. According to Waterton: "Wouralia shall be sheltered from the wintry storm; and when summer comes, she shall feed in the finest pasture. No burden shall be placed upon her and she shall end her days in peace." With this care she survived nearly 25 years. This led to Sibson's work with the use of curare in the treatment of tetanus in horses—the first clinical use of the drug.

In 1844 Claude Bernard[8] turned his attentions to curare and muscle-nerve preparations. Some of his conclusions were that irritability of curarized muscle remained unimpaired and the nerve also retained its functional activity.

The first man to use curare in tetanus in a human was Sayers.[10] In 1858 he applied curare locally to a wound in the thumb. Results were poor and the patient died. In the years that followed, curare was used repeatedly for treatment of patients with tetanus, with various degrees of success.

Pal[2] in 1900 reported eserine curare antagonism.

West[3] in 1932 used curare in the treatment of spastic disorders—Parkinson's disease, parathyroid tetany, epilepsy and hemiplegia. His results were rather variable; the drug he was using was not standardized.

In 1939 Bennett[3] began using curare as a safety factor against fractures in metrazol shock treatment. His work was aided when, in the same year, a manufacturer of pharmaceuticals supplied him with a standardized form of curare—Intocostrin®—which is derived from the plant *Chondodendron tomentosum.*

Wright[3] persuaded Griffith and Johnson to use it in anesthesia and in 1942 they reported their first series of cases. Cullen soon followed with his series.

By 1943 Wintersteiner[14] and Dutcher found the active principle of Intocostrin in crystalline form and called it d-tubocurarine chloride.

In 1949 Barlow and Ing[7] through careful chemical planning synthesized decamethonium bromide (Syncurine®), a 10-carbon compound separating quarternary nitrogen atoms.

Succinylcholine[4] (Anectine®) was originally synthesized in about the year 1906 but its true actions were not appreciated and put to practical use until 1950 when the British first used it. In 1952 it was introduced into this country.

Since the introduction of the muscle relaxants into anesthesia, many drugs such as Beta-erythroidine, Myanesin,® Tolserol® and Mytolon chloride have come into use.

PHARMACOLOGY

In normal tissue[8] an impulse arrives at the end of the nerve fiber and acetylcholine is released into the subneural space, causing depolarization of the postjunctional membrane and contraction of the muscle. The acetylcholine is hydrolized by cholinesterase almost immediately and, following this, repolarization takes place and the muscle can again contract upon further impulse through the nerve.

Claude Bernard[8] set down several requirements of a neuromuscular blocking agent: Response of the muscle to stimulation through its motor nerve must be abolished, nerve tissue conduction must remain unimpaired and the muscle must be capable of responding to direct electrical stimulation. Recently it was added that acetylcholine release should continue during paralysis. These requirements are met by the drugs that are included in this discussion.

The neuromuscular blocking agents can be divided into two groups according to their action. The first group is the curare-like or competitive inhibition blocking group; the second is the C-10-like or depolarizing blocking group.

The curare-like group blocks by raising the threshold of the postjunctional membrane to acetylcholine.[8] This action can be reversed by the anticholinesterase drugs which permit acetylcholine to accumulate and destroy the blockade. The paralysis is flaccid, is antagonized by anticholinesterase drugs, and is potentiated by ether anesthesia.

The drugs included in this group with similar actions are d-tubocurarine, gallamine (Flaxedil), the dimethyl ether of d-tubocurarine (Metubine iodide and Mecostrin) and benzoquinonium chloride (Mytolon).

The C-10-like[8] drugs are represented by decamethonium. They produce relaxation by persistent end-plate depolarization. After relaxation is effected, contraction cannot come about again until repolarization takes place, and this cannot happen as long as decamethonium is present. Flaccid paralysis occurs and anticholinesterase brings about potentiation of blockade. Potency is unaffected by ether. Succinylcholine belongs with decamethonium in this group.

For many years it was thought that curare possessed a central depressive action and analgesic properties until Smith,[14] in 1947, reported proof that it neither stimulates nor depresses the central nervous system and does not bring about analgesia. He made these observations by remaining awake while being given enough curare to produce complete flaccid paralysis.

Landmesser[9] in 1947 commented that Intocostrin and d-tubocurarine chloride, curarine chloride and quinine methochloride produce bronchoconstriction and a drop in blood pressure through the liberation of histamine from the body tissues. Antihistamine given prophylactically helped to prevent the bronchoconstriction. He also observed dose-to-dose refractoriness with the above drugs.

With therapeutic doses[1] there is no significant effect noted on the temperature regulating center, vasomotor center, vomiting center and respiratory center and cough center.

The muscles of the lids and eyeballs are first to be involved,[14] then the facial muscles. The neck muscles are paralyzed next. The diaphragm is the last voluntary muscle to be paralyzed. Massive fasciculations[6] have been seen with the use of succinylcholine, caused by depolarization of the motor end plate membrane. This effect can usually be prevented by slower administration.

Metabolism and body temperature are reduced due to decreased muscular activity.[1] In the autonomic nervous system a depression of conduction in both sympathetic and parasympathetic ganglia has been noted.[14]

The uterus is not relaxed by therapeutic doses. Pittinger and Morris[12, 13] found that d-tubo, gallamine and succinylcholine crosses the placenta in dogs when injected in the uterine artery. Decamethonium did not cross the placenta with this technique.

Curare is partly detoxified in the liver. The remainder is eliminated unchanged by the kidney into the urine. Foldes and co-workers[5] reported that about 3 per cent of Succinyldicholine is excreted unchanged and that the remainder is broken up by cholinesterase, particularly "pseudo" cholinesterase of the plasma into succinylmonocholine and eventually succinic acid and choline. Cumulation or tachyphylaxis has not been observed with succinylcholine.[4]

In comparing the potency of the various muscle relaxants, if d-tubocurarine is considered as the standard, it is observed that gallamine is about one-fifth as potent, succinylcholine slightly more than one-third as potent, benzoquinonium about the same potency, dimethylether of d-tubocurarine about 4.7 times as potent and C-10 about 5.8 times as potent.[8]

In conclusion, a few statements about present-day antidotes: Neostigmine,[8] an anticholinesterase drug, allows a build-up of acetylcholine and the blockage by d-tubocurarine is destroyed. However, this is not as simple as it sounds and atropine must be given to counteract the bradycardia, intestinal colic and salivation produced by neostigmine. Overdosage of neostigmine may bring about pronounced vasodepression. Tensilon is thought to counteract the effects of curare by displacing the curare molecules at the postjunctional membrane. However, some investigators feel that its action is that of an anticholinesterase drug. The danger occasionally encountered is that the action of Tensilon may wear off and partial or complete curarization remain.

These procedures are ineffective against the C-10 group. Blood transfusions[11] have been used to increase the "pseudo" cholinesterase of the plasma with occasional success.

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Muscle Relaxants

Effects on Respiratory and Circulatory Dynamics

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• *There are exceptions and variations to the general clinical rule that muscle relaxants depress respiration and have no effect on circulation.*

Variation may be attributed to differences in animal species, in individual response, in muscle affected, in drug used and in dose employed.

Conclusions about muscle relaxants derived from animal experiments cannot always be assumed to apply to man.

The "respiratory sparing" action of a muscle relaxant cannot be relied upon in any individual patient. Facilities for adequate artificial respiration must always be available when any dose of any muscle relaxant drug is administered.

Muscle relaxants affect circulation by inhibition of parasympathetic and sympathetic ganglia, by anticholinesterase activity and by release of histamine.

MUSCLE RELAXANT DRUGS are administered primarily for the purpose of diminishing the activity of skeletal muscle. Rarely are they administered for their effects on respiration or circulation. Therefore, effects of these drugs on respiration and circulation are considered complications or side effects. The general rule is that muscle relaxants cause a depression of respiration and cause little or no effect on circulation. This rule is sufficiently constant to be useful clinically, but there are exceptions to it. Some of the exceptions and variations have clinical applications while others serve only to excite curiosity and to stimulate further investigation of this group of useful drugs.

To discuss the exceptions to the usual effects of muscle relaxants it is necessary to outline the circumstances under which the exceptional effects occur. Although the present discussion is primarily limited to the effects of muscle relaxants on respiratory and circulatory dynamics, it will include comparative effects of muscle relaxants on other systems. The effect of muscle relaxants may vary (1) with the species of animal to which it is administered, (2) with the individual differences in members of the same species, (3) with the type of muscle being observed in any given animal, (4) with the pharmacological group to which the single relaxant drug belongs and (5) with the dose administered and with the influence of concomitantly administered drugs.

Variation Due to Species

The neuromuscular junction where the muscle relaxants exert their principal effect is a basic physiological unit and it would be logical to expect it to function similarly in most animals. However, Paton and Zaimis[18] showed that in the cat decamethonium affects the tibialis anterior muscle more than the soleus muscle, while in the monkey the order is reversed and the same drug in small doses exerts a greater effect on the soleus muscle than on the tibialis muscle. In this respect the muscle of man acts more like that of the cat than that of the monkey. The muscles of respiration respond in a manner similar to that of the soleus muscle. Paton[16] also showed that species sensitivity to muscle relaxants such as d-tubocurarine with a competitive type of action increases as follows, man and cat, rabbit, mouse, rat. The sensitivity to muscle relaxants with a depolarizing type of action is just the reverse. In general there is less species variation response to d-tubocurarine than there is to decamethonium.

These differences of reactions among the species are difficult to explain. Foldes[10] offered the suggestion that the difference in action may be due to the difference in the proteins of the receptors for acetylcholine at the myoneural junction. Whatever the cause, the indication is clear that conclusions about muscle relaxants that are based on results of animal experiments cannot always be assumed to apply to man.

Variation Due to Individual Response

Even individuals of the same species do not always respond to muscle relaxants in the same manner. In man there is a definite individual variation

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in the degree of sensitivity to the muscle relaxants but there is no characteristic racial pattern. Age may influence response. Stead[19] observed that newborns require twice the adult dose of suxamethonium per kilogram of body weight to produce comparable effects. On the other hand, newborns are more sensitive than adults to d-tubocurarine and exhibit a response somewhat like the adult who has myasthenia gravis.

It is well known that patients with myasthenia gravis are very sensitive to muscle relaxants with a competitive type of action, and a small fraction of the average dose for normal individuals may lead to prolonged respiratory arrest. Churchill-Davidson and Richardson[5] emphasized the less well known fact that in patients with myasthenia the threshold for decamethonium is elevated. Decamethonium exerts a depolarizing type of action in normal patients, but in patients with myasthenia it has a competitive type of action as shown by the reversal of its effect by anticholinesterase and by the absence of muscle twitching.

It is characteristic of decamethonium and certainly of suxamethonium that the duration of inhibition of both skeletal and respiratory muscles is less than the duration of action of equivalent doses of d-tubocurarine and other muscle relaxants with a competitive type of action. For some as yet undetermined reason the inhibition of respiratory muscles by these two relaxants in certain patients may be prolonged and apnea of a duration up to nine hours has been reported following administration of suxamethonium. Dripps[8] reported unexpectedly prolonged respiratory depression in 13 patients out of 2,800 receiving muscle relaxants during surgical anesthesia, an incidence of 1 in 215. He classified into two groups the theories advanced to explain these rare instances of prolonged respiratory inhibition—theories of central action and theories of peripheral action. The reasons for believing that the prolonged apnea may be due to effects on the central nervous system are that in some patients with prolonged apnea the diaphragm can be made to contract by electrophrenic stimulation and some apneic patients make voluntary movements with skeletal muscles before they are able to breathe. This is the reverse order of normal muscle recovery since the respiratory muscles are usually the last to be paralyzed and the first to recover following administration of muscle relaxant drugs. However, Bovet and Longo[3] found no electroencephalographic evidence of central nervous system depression in rabbits that received up to 100 times the respiratory paralyzing dose of several muscle relaxants. Not only was there no change from the normal electroencephalographic pattern of these rabbits, but the expected electroencephalographic response to external stimuli and to the administration of barbiturates and several other drugs was not altered.

Reports on the incidence of prolonged recovery from medication with suxamethonium are variable: 1:1200,[1] 1:200[9] and 1:66.[2] The two patients of Evans and co-workers[9] who were apneic for 20 minutes after single doses of suxamethonium had plasma cholinesterase levels only 10 per cent of normal. From this experience they expressed their intention to use blood transfusion to treat any future prolonged respiratory depression following suxamethonium medication. Later Harrison and co-workers[13] reported success using a small fresh blood transfusion to treat a postsuxamethonium respiratory depression of five hours' duration which had not responded to other therapy. Such experiences have led to the acceptance of the warnings that (1) small test doses of suxamethonium should precede therapy with the drug, (2) equipment and experienced personnel for endotracheal intubation and adequate artificial respiration should be readily available when even small doses of suxamethonium are to be used and (3) the drug should be used with caution for patients with pathological conditions frequently associated with low plasma cholinesterase levels, such as severe liver disease, malnutrition, and exposure to insecticides or war gases.

There is some evidence that low plasma cholinesterase concentration is not the only cause of prolonged respiratory depression following administration of suxamethonium. Of the seven patients of Argent and co-workers[1] with prolonged respiratory depression, six had plasma cholinesterase levels greater than 50 per cent of the levels of controls. Bourne[2] measured the plasma cholinesterase of ten patients who showed delayed recovery of respiration following suxamethonium and found the level below normal in eight and at the lower limits of normal in two. The author has observed only two patients whose recovery of respiratory function was delayed following use of suxamethonium with surgical anesthesia—an incidence much less than any in the reports reviewed—and on the basis of this meager experience is inclined to agree with the statement of Goodman and Gilman:[11] "It represents the cumulative effect of overdosage and can almost invariably be avoided by properly regulating the rate of drug administration."

Variation Due to Muscle Type

Why some muscles are paralyzed to a greater degree by different muscle relaxant drugs than are other muscles has not been explained. According to our present expanding knowledge of neuromuscular physiology, the chemical and electrical changes seem to be similar in most voluntary muscles. Perhaps the theory of Foldes[10] concerning the character of the proteins associated with neuromuscular junction receptors may as well explain muscle variation as species variation in their response to muscle relaxants.

According to Goodman and Gilman[11] d-tubocurarine causes respiratory paralysis in cats with minimal effect on the tibialis muscle while decamethonium causes only slight respiratory depression in a dose sufficient to paralyze completely the tibialis muscle in the same animal. The reaction of red, slowly acting postural and respiratory muscles seems to be different from that of white, quickly contracting muscles.

In man decamethonium has been thought to have a "respiratory sparing" action when compared to d-tubocurarine by clinical observation. The same has been claimed for the dimethyl ether of d-tubocurarine. When Unna and co-workers[20] measured the human respiratory vital capacity after hand grip strength had been decreased 95 per cent by various muscle relaxants, they found that decamethonium reduced the vital capacity 61 per cent, d-tubocurarine 31 per cent and dimethyl d-tubocurarine only 16 per cent. This substantiates the clinical impressions concerning dimethyl d-tubocurarine but opposes the clinical impressions about the "respiratory sparing" action of decamethonium in man.

Most anesthesiologists agree that in some patients adequate relaxation of the abdominal muscles can be achieved with only slight respiratory depression whereas in other patients it may be necessary to abolish almost all voluntary respiratory activity in order to achieve adequate abdominal muscle relaxation. Occasionally a surgeon finds abdominal relaxation inadequate even though the patient has been rendered completely apneic by a muscle relaxant. While it is probable that some such complaints are the result of surgical technical problems, in the author's experience these complaints have usually come near the end of a long surgical procedure when the only remaining problem is closure of the abdominal wall. In the light of the reports of the prolonged apnea following suxamethonium, even though the patient is able to control skeletal muscle, it is possible that the surgeon has been correct about his complaints more often than the anesthesiologist has been willing to agree.

It is hoped that in the future agents will be available for selective paralysis of single groups or types of muscles. Until then, it would seem to be in the interest of the patient's safety for the anesthesiologist to assume that any dose of any muscle relaxant sufficient to produce moderate relaxation of skeletal muscle will also bring about inadequate or marginal pulmonary ventilation. Therefore, it is not wise to rely on the selective "respiratory sparing" properties of any of the muscle relaxants now available. Instead, adequate respiration should be assured by manual assistance of respiration by the anesthesiologist when there is a possibility that voluntary respiratory activity may not be adequate.

Variation Due to Relaxant Drug

Most drugs administered primarily for the production of skeletal muscle relaxation contain quarternary ammonium groups and exert their muscle relaxing effects by altering the normal physiological processes involving acetylcholine at the myoneural junction. Since acetylcholine is involved in the normal functioning of other parts of the body, it is also reasonable to expect the muscle relaxants to alter these other functions. In fact it is difficult to explain pharmacologically why the actions of the muscle relaxants are so selective for the myoneural junction.

Paton[16] offered convincing evidence that muscle relaxants are effective by two types of action: (1) A competitive, blocking or antidepolarizing action whereby the relaxant drug is constantly competing with acetylcholine for attachment to the theoretical receptor, as exemplified by d-tubocurarine, and (2) a depolarizing stimulating action whereby the attachment of the relaxant drug to the receptor results in a prolonged effect similar to that produced by acetylcholine. Decamethonium is an example of the depolarizing type of drug. No drug acts purely by either of these types of action in all circumstances and most drugs exhibit a mixture of the two types of action. This led Hunter[14] to suggest that instead of dividing muscle relaxants into two hard and fast groups according to types of action they should all be considered as possessing the same properties but in varying degrees. He compared the muscle relaxants to rungs in a ladder at one end of which are the depolarizing relaxants which stimulate before they inhibit and at the other end the competitive drugs which rarely cause stimulation before inhibition.

The effects of various muscle relaxants on respiration has already been referred to in the sections of this presentation dealing with variations due to species, individuals, and muscles. In addition certain muscle relaxants cause a release of histamine which may result in contraction of bronchial muscle and decrease in pulmonary ventilation. D-tubocurarine is known to cause a release of histamine and for that reason it should be used with caution in patients who have asthma. Other relaxants with a competitive type of action possess the ability to cause release of histamine in varying degree. The depolarizing type of relaxants such as decamethonium and suxamethonium are unlikely to cause release of histamine and therefore they may be used for most patients with asthmatic tendency. The value of antihistaminic drugs to counteract the effects of histamine released by muscle relaxants is uncertain. Paton[16] pointed out that in general the antihistamines have proved ineffective against histamine liberators such as morphine, meperidine, atropine and the trypanocidal diamidines. On the other hand Goodman and Gilman[11] concluded that the antihistamines are of value if administered before the muscle relaxant is administered.

Very little has been said about the effect of muscle relaxants on the dynamics of circulation. In man the doses used to produce a moderate degree of skeletal muscle relaxation generally have little effect on circulation. In animals larger doses produce more definite effects on circulation because even though the neuromuscular junction is more sensitive to these drugs, the transmission of nerve impulses at other sites may be altered by high concentration of the drugs. Relaxants may affect circulation by alteration of parasympathetic control, alteration of sympathetic control or release of histamine. Guyton and Reeder[12] in studies using dogs compared the sensitivity of parasympathetic and sympathetic nerve transmission with the sensitivity of the gastrocnemius muscle to Intocostrin.® To block the parasympathetic ciliary ganglia and cardiac vagal endings, 1.5 times the gastrocnemius-paralyzing dose was needed. To block the sympathetic ganglia supplying the splanchnic blood vessels and the heart required, respectively, 5 times and 10 times the gastrocnemius-paralyzing dose. From this it is evident that the muscle paralyzing dose of d-tubocurarine, which is the active principle of Intocostrin, is only slightly less than the dose which inhibits the parasympathetic activity but much less than the dose needed to inhibit the sympathetic ganglia. Dimethyl d-tubocurarine is a less potent ganglion blocking agent than d-tubocurarine. The fall in blood pressure caused by the rapid intravenous administration of large doses of d-tubocurarine is probably due to the release of histamine with peripheral vasodilatation rather than to autonomic ganglion block.[11]

Gallamine (Flaxedil®) has less sympathetic ganglion blocking action than d-tubocurarine but exerts a selective atropine-like action on the heart and causes sinus tachycardia. No such parasympatholytic effect occurs on other structures such as blood vessels, eyes and salivary glands. Muscle relaxing doses of gallamine protect the heart against the ventricular arrythmias associated with administration of epinephrine during anesthesia produced with hydrocarbons.[11]

Benzoquinonium (Mytolon®) has a parasympathetic action due to its anticholinesterase activity which is about one-fourth that of neostigmine. The expected effects are bradycardia, salivation, gastrointestinal colic, cardiac extrasystoles and, rarely, bronchospasm. Large doses of atropine are necessary to counteract these effects. The use of benzoquinonium is contraindicated in patients with respiratory disease or atrioventricular or intraventricular conduction block.[11]

Laudexium (Laudolissin®) is about one-fourth as active as d-tubocurarine in causing ganglionic block.[14]

Decamethonium is less than one-fifth as active as d-tubocurarine in causing ganglionic block. Paton[17] showed that the intensity of action of decamethonium is inversely proportional to the flow of blood through the structures being studied and surmised that inhibition to action by the drug in the ganglion may be associated with the connective tissue sheath and its effect on blood flow.

In light of its initial stimulating action at the myoneural junction it is not surprising that suxamethonium may also stimulate autonomic ganglia. Doses larger than those required for neuromuscular block may depress the autonomic ganglia and cause cholinergic response in smooth muscles and the exocrine glands.[11] Johnstone[15] noted that suxamethonium causes bradycardia in 32 per cent of humans. Within a few minutes the bradycardia is followed by an increase in cardiac rate, or, if atropine is given intravenously, the bradycardia is abolished within 20 seconds. Johnstone reported upon four patients in whom the administration of suxamethonium resulted in marked bradycardia and serious fall in blood pressure.

Variations Due to Dose of Relaxant and Effects of Other Drugs

In monkeys, small doses of decamethonium first paralyze the tibialis muscle while the soleus muscle is less affected. If the dose is repeated several times, the effect on the tibialis decreases while that on the soleus increases, so that it is possible, with the proper total dose, to paralyze the soleus and have the tibialis little affected. The same can be accomplished in cats with d-tubocurarine.[18]

In man a four-fold increase in the smallest dose of d-tubocurarine which will affect the most sensitive muscles will result in complete paralysis and apnea.[17] Mention has already been made that in dogs a five-fold increase in the muscle paralyzing dose will block the sympathetic ganglia supplying the splanchnic blood vessels and a ten-fold increase will block the sympathetic ganglia supplying the heart. Provided adequate artificial ventilation is maintained, the effects of doses of this magnitude of d-tubocurarine are reversible in dogs, but 20 times the apneic dose becomes lethal in spite of continuous artificial respiration. According to Cole[6] it is possible that during these experiments death from overdosage was due to histamine effects, since gastrointestinal hemorrhage was a constant finding and death was ascribed to alteration of the cardiovascular system.

Not only may the effects of muscle relaxants vary with the dose administered but the effects may also be altered by other drugs which are active simultaneously. The proper dose of anticholinesterase will relieve the neuromuscular block caused by the competitive type of relaxants. Large doses of an anticholinesterase like neostigmine can reduce muscle contractions produced in rats by a rapid rate of stimulation and this muscle inhibition can be partially restored to normal by d-tubocurarine.[4]

Ether and cyclopropane enhance the effect of d-tubocurarine but may decrease the effect of decamethonium. An average dose of d-tubocurarine is more likely to cause a decrease in blood pressure when administered to a patient under moderately deep ether anesthesia than when administered to a patient under light barbiturate anesthesia. Guyton and Reeder[12] found that a dose of d-tubocurarine which was fatal to a dog when given rapidly, was safe when given over a 10-minute interval. Hexamethonium, which is noted for its ability to block autonomic ganglia, also exerts a minimal blocking effect of the competitive type at the neuromuscular junction. It can produce head-drop in rabbits, and it potentiates the effect of d-tubocurarine.

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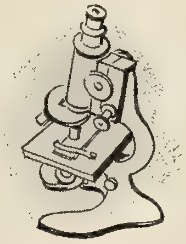

Muscle Relaxants

Their Use and Abuse in Anesthesia

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• Probably the most widely used anesthetic today is the intravenous-inhalant-relaxant combination. The relaxant drugs are the key to this combination. Lack of knowledge of the pharmacology of these drugs, their effect on circulation and respiration and of the physiology of respiration can seriously abuse and impair the evident value of this method. It should not be used routinely to the exclusion of equally valuable techniques that might serve better in some circumstances.

LUMBAR PUNCTURE AND VENIPUNCTURE have long been considered simple procedures easily within the abilities of most interns. A corollary to this "axiom" is that interns may be permitted to take and do readily accept the responsibility of giving anesthetic agents intraspinally and intravenously.

Recent criticism of spinal anesthesia and wide publicity given to a relatively few complications with subarachnoid block have taken this method out of the hands of the untrained and inexperienced.

Partly because of this decline in popularity of spinal anesthesia, partly because of the increased popularity of the Bovie electrosurgical unit, but mostly because it is so easily given and so pleasantly received, intravenous anesthesia has waxed steadily in esteem not only in medical but in nonprofessional quarters as well.

When the ultra-short acting barbiturates were finally effectively developed, they were rapidly accepted. The wise addition of oxygen and nitrous oxide mixtures helped to maintain them in general use, but it was the introduction of d-tubocurarine that truly established the place of this method in medical practice. The intermittent injection of small increments of narcotics throughout the anesthetic period completed the technique.

There is no question that this barbiturate-relaxant-inhalant-narcotic combination has become in the short space of fifteen years the predominant method of anesthesia in the United States. It is a valuable, reliable, precise orderly technique with almost too broad applicability. Without the relaxants, the technique would have certainly a much smaller—although not minor—role in contemporary anesthesia. With curare and the other relaxants it has become famous—and infamous.[1]

There may be profit in exploring some of the reasons for infamy. That "curare" is *per se* responsible for the large number of so-called "anesthetic deaths" attributed to it is impossible to believe. This is not to deny that there have been a number of "curare deaths," but some investigators believe that it is possible there were mistakes in technique or judgment by the anesthetists in some cases. In addition it is possible there have been many other errors of commission or omission which were not fatal or perhaps even debilitating. Hence it is well to give attention to some of the things that may have been done that should not have been done and to things that should have been done but may have been neglected.

To begin with, the successful use of the whole technique requires more knowledge and ability than that needed for successful venipuncture. And even the ability to do venipuncture acceptably is not shared by all the votaries of this method of anesthesia. There are a few simple principles, the mastery of which should be required of anyone planning to administer drugs intravenously.

A fact often overlooked is that once these drugs are injected they are irrecoverable. In the main, metabolic processes must be relied upon for their detoxification or elimination. If plasma pseudocholinesterase is abnormally low, as it might be in patients who have been bleeding profusely, or who have been exposed to certain agricultural poisons, the recovery from succinylcholine injection may be very prolonged. Edrophonium should be used to counteract d-tubocurarine, but it must be remembered that it is a short acting drug and sometimes unreliable, especially when dealing with relatively large doses of curare.

This of course means that the drug and dosage must be chosen to fit the individual case. Yet a timid approach with repeated small doses is undesirable, for one can get into trouble easier with too little curare than with too much.

From the Samuel Merritt Hospital, Oakland 9.

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The relaxants are divided generally into two types: (a) Those causing muscular paralysis by preventing depolarization of the motor end plate by a nerve impulse and (b) those preventing repolarization after the impulse has been discharged. In general, the former are slower of onset, longer of action and less rapidly eliminated. They can be antagonized to some degree by prostigmine and its homologues. Of these, d-tubocurarine is the most useful. The methylated curares, although effective in small dosage, have no real advantage. Gallamine triethiodide is reputed to be less toxic than d-tubocurarine, is readily eliminated in the urine, has no histamine action (although the author has never been much impressed with this feature of d-tubocurarine) and does not cause autonomic blockade or vascular collapse. It is perhaps easier to intubate when Flaxedil® rather than d-tubocurarine is used. But gallamine does increase secretions and it causes tachycardia which can be confusing.

Decamethonium and succinylcholine, the depolarizing agents, are quickly effective and rapidly eliminated, and therein lies their chief advantage. Both are used in combination with d-tubocurarine. However, experience has shown that the administration of decamethonium and d-tubocurarine together, at least in very ill "toxic" patients, may cause persistent and consequently fatal apnea.

Decamethonium is the ideal agent for use when relaxation for intubation only is desired or where periods of 15 minutes or less of relaxation are required. But beyond this, it has little value.

Since succinylcholine is actually a pharmacologic antagonist to d-tubocurarine, the use of these two together is technically illogical. However, from a practical clinical standpoint, they can be used together even in the same syringe. Preferable practice is to use succinylcholine throughout as a drip or to use d-tubocurarine after the initial dose of succinylcholine has been destroyed.

When succinylcholine is used as an aid for intubation of patients having operations about the head and neck, it is common for a patient to complain afterward that "someone sat on my chest" or "kicked me in the belly" during the operation. This phenomenon is apparently secondary to the muscular fasciculation observed after the injection and is, to the author at least, a very real limitation upon its use.

These drugs, although acid in reaction, can be mixed with alkaline pentothal solutions in so-called Baird's or Clark's mixtures. The purpose of this combination is to reduce the required dose of thiopental and consequently lessen postoperative depression. In many cases it serves that purpose, but often an overdose of one drug must be given to get the desired effect of the other. Therefore, it is better to use separate syringes and give the calculated dose of each drug rather than predetermined routine combinations.

Many physicians use curare as an analgesic in spite of the fact that very early it was determined that it has no analgesic properties.[2] Differentiation must always be made between the need for additional muscular relaxation and additional anesthesia. The relaxants should be used for one and the narcotics for the other, but not the relaxants for both. It is possible to so relax a patient that he cannot complain of pain, but to do so constitutes abuse of a valuable drug.

Relaxants are just what the name implies. Respiratory muscles have the fortunate quality of being most resistant to the effects of curare and similar compounds. But some degree of interference with respiration must always be assumed when this combination of drugs is used in clinical anesthesia. They are all respiratory depressants excepting nitrous oxide. If ether is used, it of course acts synergistically with curare.

Too often ventilation is inadequate either because of ignorance or carelessness on the part of the anesthetist. Simply placing the patient in an oxygen-rich atmosphere does not insure a high arterial pO_2. And when ventilation is insufficient to maintain normal arterial tension, there is also insufficient carbon dioxide elimination. And there it is—hypoxia plus hypercarbia equals asphyxia.

On the other hand, overly vigorous, constant "bagging" of the patient can be almost as deleterious either by filling the stomach with air or interfering with circulation.

Furthermore, an endotracheal tube must not be looked upon as the whole solution for this problem. While it is perhaps the most valuable tool in anesthesia, after all, sore throat, dental injury, cut lips, nasal hemorrhage and laryngeal granulomas do sometimes result from use of the tube.

The partial autonomic blockade produced by d-tubocurarine can be a desirable effect, but also it can result in a fall in blood pressure. Hypotension following induction of anesthesia with curare and thiopental is not uncommon, especially if rapid intubation is accomplished. Probably in the majority of patients this is of no consequence; but in a certain few, particularly debilitated or chronically ill elderly patients, it can be fatal.

During the past two decades the rapid evolution of the practice of anesthesia, amounting almost to a revolution, has brought about so many changes that now it seems desirable to speak of the practitioners of this art as anesthesiologists. An anesthesiologist may be described as a practicing physiologist and pharmacologist. Unless he knows well the effects and uses of the relaxant drugs, he is not entitled to use either the appellation for himself or the drugs in his practice.

Also, one who calls himself anesthesiologist should be master of all techniques used for the production of anesthesia and analgesia. His choice of method and agent should be dictated by all factors operative in any given case and should not be limited by personal preference stemming from lack of knowledge or absence of skill with an alternative technique. All too often, through habit, carelessness, mental stagnation or trepidation, a method or a particular anesthetic agent—cyclopropane or ether, for instance—is not used even though it may be distinctly indicated in a given case.

To be sure, in the majority of cases the balanced intravenous-inhalant-relaxant method serves well if the limitations of the method in general and of the individual drugs in particular are constantly kept in mind. But in many instances it will not serve adequately, and failure then to select the agent and method that is indicated is just as much abuse of the relaxants as is improper dosage or inadequate support of the patient.

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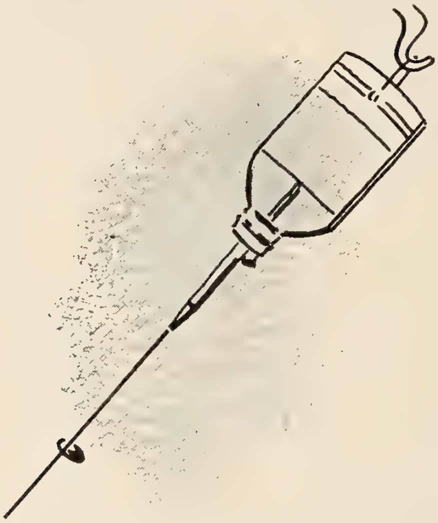

Poliomyelitis Vaccine

A Report on Field Trials in Southern Alameda County in 1954

THOMAS R. PERDUE, M.D., and JAMES C. MALCOLM, M.D., San Leandro

• Southern Alameda County was the only area in California to take part in the 1954 nationwide field trials for testing poliomyelitis vaccine. Besides the contribution made in evaluating the vaccine, other benefits were:

1. Participation contributed to the control of a serious communicable disease.

2. Inoculations of vaccine during the field trials in all probability prevented some cases of paralytic poliomyelitis among children in southern Alameda County.

3. The community became better informed about poliomyelitis and more interested in the local health department.

4. Local physicians had an opportunity to contribute to important research and to give a valuable community service.

5. The staff of the Alameda County Health Department became better informed and better prepared for any future responsibilities in poliomyelitis immunization programs.

Other conclusions reached as a result of participation in the 1954 field trials are that the initial planning of the study was hasty and not sufficiently representative of medical and administrative thinking. If the trials had been planned for 1955 instead of 1954 there would have been sufficient time for research to be completed, professional information to be assured and for sound design of study.

Greatly accelerated research in the field of virus diseases in recent years has led to a much better understanding of epidemiologic factors, particularly with regard to poliomyelitis. Great sums of money have gone into intensive studies of that disease, many directed to the ultimate prevention of it or of its paralytic consequences. In fact for a time knowledge accumulated more rapidly than it could effectively be disseminated. Hence the pronouncements in the autumn of 1953 that a trial vaccine was ready for large-scale testing—that, in fact, plans were already well laid for such testing by the National Foundation for Infantile Paralysis—came as a surprise to many physicians.

It seems clear that the studies of Jonas Salk did certainly justify large-scale testing. Few will question, however, that nationwide field trials, as proposed for the spring of 1954, encountered many obstacles as a result of the rush to prepare for them.

It was obvious that an undertaking of this size could be carried out only by local health departments. Plans were such that only certain areas in the country could be considered. The following factors were the basis for possible selection: (1) A high incidence of poliomyelitis among children in the first, second and third grades of school; (2) a large population in these age groups selected for the study, and (3) a well-organized local health department with an interest in the study.

Although some technical information had been published in a few professional journals (a greater amount of publicity had appeared in the lay press) many questions remained to be answered. Virologists, epidemiologists, health officers and practitioners hastened to ask them. These questions had to do with the following:

1. *Safety of the vaccine.* Was the live virus altered in such a way that it could not produce disease? Was kidney tissue a safe element, or was there danger of nephrotoxic effects?

2. *Potency.* Could this particular vaccine reasonably be expected to protect against paralytic poliomyelitis?

3. *Biologic assay.* What procedures were reliable?

4. *Intervals between injections.* What schedule should be used?

5. Was aqueous vaccine likely to produce immunity as good as that produced by an adjuvant-base vaccine?

6. Follow-up and evaluation plans.

7. Administrative arrangements for carrying out the trials.

8. Was it reasonable to believe that solid immunity could result from inoculation of killed virus?

It soon became obvious that although some of these questions could be answered satisfactorily at the time, others could not. It was evident that rather detailed field trial plans had been formulated before

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some of these questions could be answered, and before all the necessary research data had been gathered. But the additional data were forthcoming, and did lend support to the plans. That these results were known at such a late stage and that they were further delayed in their circulation, however, points up an important problem encountered in the 1954 Field Trials. Much of this type of difficulty would have been avoided had the early planning been more representative of health department thinking. And many of the questions about the vaccine might well have been resolved even before plans for an extensive trial were undertaken.

It became clear that the country was in the midst of hurried plans for field trials before the great majority of practitioners and health officers could become well informed about the vaccine itself. There were more than a few physicians who were understandably confused on the subject. But the field trial plans continued, centered on nationwide testing in selected areas. Children in the second grade of school would be injected with aqueous vaccine containing killed virus of the three known types. First and third grade children would serve as uninoculated controls. The trials would involve perhaps 2,000,000 children, and the inoculations would be given according to this schedule: the first on zero day; the second on day seven; and the third, or booster injection, on day thirty-five. About 2 per cent of the children inoculated would also have blood specimens drawn for antibody studies before and after the series of injections. Inoculations were to begin early in the spring and be completed before school was over. Areas for testing were to be proposed by state health departments and approved by the National Foundation for Infantile Paralysis.

PLANS FOR FIELD TRIAL CHALLENGED

Although many states accepted the field trial plan as originally proposed, others raised serious questions:

1. Would the study method proposed give the conclusive answers sought?
2. Were the procedures adequate to assure safety of the vaccine, and
3. Were adequate provisions being made for follow-up and evaluation?

California, in particular, insisted that a sound trial would necessarily include use of a placebo, and insisted, further, that satisfactory answers be obtained to the questions regarding safety of the vaccine before the state would agree to participate. It was only in February, after many weeks of nationwide publicity about the trials, that satisfactory information was made available to California which permitted a sound decision to be made. On the recommendation of an Ad Hoc Advisory Committee, the State Department of Public Health agreed to participate, and this decision received the approval of the State Board of Health.

There were several areas in the state considered suitable—among them, San Diego County, a portion of Los Angeles County, and southern Alameda County. Whether from lack of funds, early rise in incidence of poliomyelitis, or from lack of community interest, all areas but southern Alameda County ultimately indicated they could not take part. Southern Alameda County remained under consideration only because of a keen interest on the part of the community, and a sincere desire on the part of the local health department staff to engage in this program. The decision by the Alameda County Health Department to participate was reached only after considerable efforts had been made to get the necessary information—and only after thorough analysis of the meaning participation would have. The great public interest, and the opportunity to provide an unusual community service were factors of obvious importance. And, of course, the fact that Alameda County could make a contribution to the nationwide study was of no little consequence.

Designation of the southern part of the county by the State Department of Public Health as a trial area followed, and active local planning got under way. The county health officer called together a group made up of representatives of the medical profession, of the local chapter of the National Foundation for Infantile Paralysis, of school systems, of Parent-Teacher associations, of newspapers and the staff of the county health department. A representative of the State Department of Public Health who attended presented information about the trials in some detail. After discussion ended, the opinion of the group was asked for. It was quickly forthcoming in a motion endorsing local participation and promising full cooperation from those present. The group requested that the county health department proceed with the planning and ask for whatever help would be needed.

A small planning group was quickly formed, composed of the county health department staff, with a representative from the local chapter of the National Foundation for Infantile Paralysis, and a member of the State Department of Public Health. Meetings were held twice weekly at regularly scheduled times. Early meetings were geared to the following objectives: (1) Approval by the local medical societies, and agreement by their members to participate in the trials; (2) interest among school personnel; (3) interest among parents and a desire to take part, and; (4) a well-informed local health department staff willing to give the extra time and effort needed for a successful job.

Professional interest already abounded, and active local medical support was forthcoming as soon as adequate information was made available. Not only did local physicians approve participation, but they volunteered to give the injections in the schools. Early talks to local physicians by the health officer, and by members of the State Department of Public Health were instrumental in providing information and in gaining support. Later, printed information of a technical nature was circulated by the health department to Alameda County physicians in an attempt to answer their many questions.

This material presented a rather comprehensive idea of the preparation, testing and use of the vaccine, and local practitioners greatly appreciated it, for they had no other easily available source of such information.

Interest of school personnel was necessary, since the trials were based on their active participation. So an early meeting was arranged with the 30 school administrators in the area, and current plans were presented. Their endorsement resulted, and each agreed to request the approval of his respective school board. After many approvals had been obtained, one school board raised the question of legal liability, and asked the opinion of the district attorney. A preliminary statement from the district attorney's office made it plain that public schools lacked the authority to take part in the study, and, further, pointed out that the injections could be given in the schools only after regular school hours. It appeared, for several days, that all plans had been in vain, but in a final legal opinion a way was found. Injections could be given during school hours, but school personnel could take no part in the trials. The first big hurdle was cleared.

INFORMING THE PUBLIC

The public desire for information was satisfied largely through talks to parent groups by physicians of the county health department and by local practitioners. Newspaper and radio coverage were also extensive. In the later stages, printed information prepared by the local health department was sent to all parents of first, second and third grade children. Public health nurses, as well, contributed a great deal toward public education.

Interest within the health department was at a high pitch, and early efforts were concentrated to provide a well-informed staff, each member with an adequate understanding of the trials. Special educational meetings were held for the nursing staff early in the planning, and at a later meeting the entire staff heard the plans explained by Dr. Robert Korns, a member of the Vaccine Evaluation Center Staff. Minutes of planning meetings were circulated so the whole staff could keep abreast of developments.

VOLUNTEER HELP

Agreements were reached with the local chapter of the National Foundation for Infantile Paralysis regarding financial support, and the chapter also agreed to be responsible for recruiting the volunteer help needed.

Because of the public enthusiasm for the study, volunteer recruitment was no great problem. The forms that parents were required to fill out giving permission for vaccination were prepared, and sent to parents, and were returned. Clinics were scheduled, and time for the injections approached. But there were serious doubts that the vaccine could arrive in time. Final safety testing had to be completed and the lots officially approved before they would be released for shipment. Again, plans had to proceed without assurance they could be carried out. Physicians were assigned to clinics and notified of the work schedule. Recorders were trained, volunteer nurses recruited and clinic teams formed. But the vaccine was further delayed. It was not until April 25 that any vaccine was released, and only the afternoon before injections were to begin that shipment to California started. At the very last moment the National Foundation had decided against California participation, for reasons still not clear. It was only after urgent assurances from the state health officer and from local National Foundation for Infantile Paralysis chapter officials that the vaccine was put on its way.

It did arrive, and, quite dramatically, just two and a half hours before injections were to begin. But the clinics operated as scheduled, the injections were completed, and the first easy breaths drawn.

By June 10, 1954, 7,166 children had received three injections each—half of them with vaccine, half with placebo—all identified simply by a code, the key to which was known only at the Evaluation Center in Michigan. A hundred local physicians and some six hundred other volunteers had taken part. The entire staff of the county health department, including all sanitarians and clerical personnel, had been directly involved. Clinics were held May 5 and 6, May 12 and 13, and June 9 and 10, in 90 different schools.

The first part of the study was over, but important responsibilities remained. To give any meaning to the trials, careful follow-up and good evaluation had to be assured. Blood studies for antibody titrations were to be made on all family members in any family in which there was a case of poliomyelitis and a child of the study age group. And stool specimens were to be collected for virus isolations in similar circumstances. Uniform diagnostic criteria were to be applied, and prompt reporting was a necessity. Muscle grading examinations were to be arranged for children in the study ages who contracted poliomyelitis. Promptness was necessary in reporting cases to the Evaluation Center, as well as completion of attendant epidemiological histories. Responsibility for the follow-up was shared with the State Department of Public Health. The period of follow-up extended from May 10 through December 31 of 1954.

Results of the follow-up now reveal that a total of ten cases confirmed as poliomyelitis occurred during this time among children in the study age group in southern Alameda County. Seven of these ten cases were among children who did not receive any injections. The remaining three cases all occurred in children who had received the placebo.

The final results of the nationwide trials became known April 12, 1955, and need no repeating.

A review of the participation of southern Alameda County in the study brings out the following conclusions:

1. Initial planning of the study was hasty and not sufficiently representative. If the trials had been planned for 1955, instead of 1954, there would have been sufficient time for research to be completed, professional information to be assured, and for sound study design.

2. Public health authorities in many areas were willing to accept without argument a trial originally designed on an unsound basis. Save for the insistence from some states, no placebo trials would have been conducted, and the results could not have been so conclusive.

3. Participation in the study contributed to the control of a serious communicable disease.

4. Inoculations during the field trials in all probability prevented some cases of paralytic poliomyelitis among children in southern Alameda County.

5. The community became better informed about poliomyelitis and more interested in the local health department. Increased public respect for the health department resulted.

6. The 1954 Field Trials provided the first real opportunity to work with the local chapter of the National Foundation for Infantile Paralysis, and proved in still other ways that teamwork was possible.

7. Local physicians had an opportunity to contribute to important research, and to give a valuable community service.

8. Members of the staff of the Alameda County Health Department are better informed, more interested, and have greater self-assurance for future undertakings.

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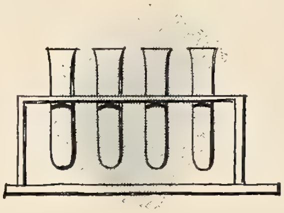

A Medical Student Looks at Blue Shield

CARL B. YOUNGER, North Hollywood

AS THE PHYSICIAN OF THE FUTURE, the medical student of today looks at the present as he reads of the past and dreams of tomorrow. His observation of the present is preparation for his participation in the future. He relates his personal struggle to the strivings of the profession. Professional problems become personal problems. And he knows that when he becomes a functioning part of medicine, personal problems will then be professional problems. Therefore, he is more honest with himself if he analyzes a problem that will soon be his with respect for his own feelings instead of attempting to achieve objectivity through superficial elimination of subjectivity. It is with this attitude that this medical student looks at Blue Shield.

A SCIENCE OF SERVICE

Medicine is a science of service. It was created by man, for man, to protect man's most precious possession, life. How to serve his fellow man most effectively is the universal challenge of medicine. It is the personal goal of the physician. In a democracy dedicated to the proposition that all men have the right to equal opportunity, the proportions of the challenge are enormous.

Accepting the challenge as a personal problem, the medical student asks of himself, how should this be met?

In answer, he focuses first on the primary participants in the practice of medicine, the physician and his patient. Their relationship is the essence of medicine.

He narrows his scope of observation and considers this relationship in terms of the patient. First and foremost, the patient has the right to medical care when he needs it. Neither the quantity nor the quality of care should be solely dependent on the patient's economic status. For this care to be fully effective, anxiety stress which can complicate or create illness must be kept to a minimum. Doubt in the doctor and concern over cost are frequent causes of preventable anxiety. If the patient finds that he lacks faith in his physician, he should have the right to choose another in whom he can have confidence. He should be able to direct all of his energy toward getting well and not have it consumed by worry over the bill.

The primary responsibility for the physician-patient relationship rests with the physician. It is essential that he be able to concentrate his skill and concern on each patient as an individual. He must have the freedom to decide, on the basis of his knowledge and experience, how best to treat every person who comes to him for care. He must have the opportunity to establish the closeness necessary for communication. He must be in a position where he is free to serve the needs of the patient and practice in a manner that is satisfying to himself.

The relationship of physician and patient that is based on mutual respect benefits both and forms a solid foundation for sound medical practice.

This, then, is the answer for the student.

But how have others answered the question in practice?

Since early in the history of medicine post-paid private practice has been the dominant form of medical service and it continues to the present day. This is a system whereby a patient chooses a doctor when in need of medical care. The care is prescribed for the patient by the physician. The patient is billed by the physician according to the services rendered. With complete freedom of choice, the patient may select a doctor in whom he has confidence. He has the right to solicit different or additional medical advice. These factors, however, are limited by the condition of his pocketbook. The request for needed medical care is frequently postponed or never made because the patient may feel that it is easier to be sick than to worry about the doctor bill. His freedom of choice is limited by his income tax bracket. He may lack confidence in his doctor because he *can* afford him. If more help or treatment is indicated, he can get it *if* he can pay more for it.

PATIENT-PHYSICIAN RELATIONSHIP

The core of private practice is the patient-physician relationship. The physician is able to serve his patient with skill and understanding, since he is free to devote the time he feels necessary to the individual patient. He is free to prescribe the therapy that his knowledge and experience indicate as appropriate. However, as a human being, the doctor is concerned about his own economic welfare. Therefore, of necessity, the patient's ability to pay is a factor in their relationship. The concern

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Mr. Younger, a medical student (Class of 1958) at the University of California at Los Angeles School of Medicine, won first place in the California Blue Shield essay contest and second place nationally.

of a patient over his projected bill is obvious to the physician. It is important that the physician relieve this anxiety in order that he and the patient may work together on the primary problem, the patient's illness. The time consumed in relieving this anxiety could better be devoted to relief of the illness. His prescription for medication or therapy may have to be bounded by how much the patient can pay, and not necessarily by what would be most beneficial.

THE "PRACTICE FOR PROFIT" BARRIER

Another form of service is found in the prepaid group practice for profit medical plan. In this type of plan, integrated groups of specialists are brought together under one roof. Potential patients subscribe to the services of these doctors for a fixed fee, usually payable monthly. The patient has the right to medical care when he needs it, according to the terms of the contract. Potentially, the services of every physician in the organization are available to him. The prepaid factor of this plan helps to relieve the patient's anxiety regarding finances. The services of this type of plan are limited to those living within the area where a major facility is located. This particular plan functions principally as a business enterprise. Practice for profit is the primary purpose of the organization. All other goals are subsidiary.

The member patient's choice of a physician is limited to members of the organization. It is frequently further limited by organizational policies or clerical procedures. For example, an emergency request for Doctor "A" is answered by the switchboard operator with, "So sorry, only Doctor 'X' is on call tonight." A call at the office may provide the information that Doctor "B" is no longer with the organization and Doctor "C" has no available appointments, but Doctor "Y" has a cancellation. As the patient passes from one to another on this medical assembly line, he begins to feel more like a part than a person. This recipient of conveyor belt care gets lost in the shuffle of charts and routines. He is a patient that passes through, not a person for whom the physician cares, for whom he works and to whom he devotes the summary of his years of experience to help. There is little opportunity for the patient to feel secure through his relationship with the physician.

As an employee, the physician is more responsible to the organization than to the patient. The physician becomes a servant of profit. His practice is regimented rather than self-regulated. The unique professional challenge of medicine is gone. The physician's identity is lost. He is a man with a job to do.

Compulsory government-controlled health insurance and socialized medicine have been suggestions made by some. Cost of care to the individual would seemingly be minimized, but would, of necessity, be reflected in much higher taxes to all. The American system of free enterprise would be corrupted by such a plan involving the sacrifice of incentive, initiative and individuality. Without these essential elements, the profession of medicine, as the healthiest nation in the world knows it today, would cease to exist.

Blue Shield, a nonprofit organization, conceived and controlled by the medical profession, offers still another plan in the form of voluntary health insurance. In Blue Shield, a subscriber insures medical treatment in advance by depositing small premiums at regular intervals. When in need of medical treatment, he consults a physician of his own choice, who is paid entirely, or in part, directly from the Blue Shield fund. Relieved of financial stress, a patient will not put off seeing his doctor at the first symptom of illness. This will enable the physician to work more effectively with him. Secure in the knowledge that medical care is available when he needs it and assured that it is not beyond his means, the stress of illness is not increased by anxiety over post-emergency costs. A Blue Shield subscriber knows that he himself may choose the physician in whom he has confidence. Thus the personal relationship so necessary to healing is on a stronger basis because the physician he goes to see as a Blue Shield member is *his* doctor.

ADVANTAGES TO THE PHYSICIAN

The physician who uses Blue Shield service develops and regulates his own practice. Initiative is an asset, not a liability. Personal identity is not lost. Professional integrity is maintained at his own standards. As in all private practice, the physician's primary responsibility is to the patient that he serves. Since the practice is his own, he is able to have the type of relationship with his patient that he desires. A Blue Shield subscriber is *his* patient and the personal satisfaction of purposeful practice is his. When a Blue Shield patient comes to the physician, the fee communication barrier is lowered because the Blue Shield schedule of fees provides the basis for opening discussion.

Essentially, Blue Shield serves as a reservoir of funds to which the patient deposits regularly and from which the physician withdraws when he gives treatment. It is operated solely for the benefit of the patient and the physician. No profit-seeking third party is involved. It is not without flaws, but it is flexible. Changes, as needed, can be made through the physicians who direct its operation.

This student has compared Blue Shield with other forms of practice on the basis of his own standards of service. He has found no plan without merit, and of course, no plan that is perfect.

He has found in Blue Shield a plan that preserves the vital personal relationship between the patient and physician, provides a professionally led program of competent care, protects the patient from the financial catastrophe of illness and injury, promotes physician incentive and initiative and presupposes progress by a flexible form of operation.

This student of medicine looks forward to a professional career in which his personal satisfaction will come from his professional ability to help others. Blue Shield fits into such a professional career, helping him meet the challenge of providing medical care for his fellow man.

This medical student today is looking forward to becoming a Blue Shield physician of the future.

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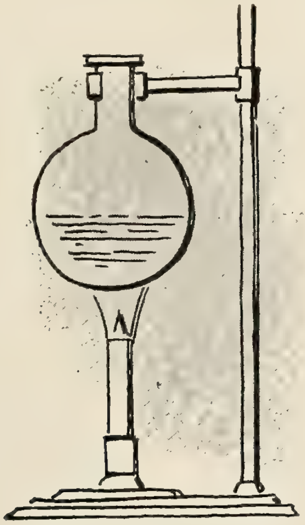

CASE REPORTS

Poisoning by Organic Phosphate Insecticides

ROY C. SMITH, M.D., MORTON KIMURA, M.D., and MAXWELL IBSEN, M.D., San Jose

A NINE-YEAR-OLD Japanese boy, vacationing on his grandparents' ranch, spent about one and a half hours with his grandfather and two teen-age cousins while they were dusting a strawberry patch. The dusting agent used, a 2 per cent adsorption of parathion on a wettable dust, was marketed under the trade name of "Thiondust" to be used in that concentration. It was adequately labeled in English regarding toxicity, precautions and first aid treatment. The label also included instructions for physicians. The distributor keeps on his sales counter illustrated booklets printed in nonprofessional language by the California Department of Industrial Relations containing warnings and instructions in English and Spanish.

The weather on the day the dusting was done was hot and windy. Perhaps because of language difficulties, the adults did not comprehend the dangers involved. The grandfather had a mask which he wore for a short time, then discarded as a nuisance. The nine-year-old boy did not wear a mask or protective clothing.

After the first spraying operation none of the persons concerned had any symptoms.

The second day about two hours were spent in the same manner. On the way home the boy rode alone in the load compartment of the truck with the bags of Thiondust, but it is not known whether or not he was in actual contact.

Shortly afterward, all four began to complain of headache. In the adults, the symptoms did not progress further, but the boy rapidly became acutely ill. His grandmother, at first unconcerned about the headache, soon noticed that he was perspiring profusely. She gave him an enema but before he had expelled it, he seemed to be losing consciousness and she called a physician. He was rushed to the nearest hospital, ten miles away, by ambulance.

He arrived there at 3:30 p.m. in a state of shock, vomiting frequently. The temperature was 99.2° F. The pupils were constricted. The neck was not stiff. Respirations were rapid and difficult. There were no rales. The heart rate was rapid and regular and no murmurs were heard. There were no abnormalities in the abdomen and genitalia. The extremities were cold and sweaty.

Given 0.3 mg. of atropine intravenously immediately on arrival, the patient responded quickly. At 4 p.m. the pupils were dilated and the patient was able to talk intelligently and seemed much better. At 4:30 p.m. he passed a large liquid stool involuntarily and seemed incoherent. The nurse's notes indicate that the pulse was rapid and that there was "mucus in throat." At 4:40 p.m. the nurse wrote, "pupils contracted, eyes twitching, not responding." At 4:50 he was given 0.3 mg. of atropine again but did not respond as previously. Muscle twitching became generalized and the patient was soon in a state of unremitting convulsions. He was given 0.4 mg. of atropine by vein twice more, but with no apparent effect. The pupils remained pinpoint and he was mildly cyanotic, in spite of oxygen by nasal catheter and postural drainage.

At about 8 p.m. voluntary respirations ceased rather abruptly. Artificial respiration and respiratory and cardiac stimulants were used but at 9:05 no heart action could be found and the patient was pronounced dead.

Blood had been taken for routine laboratory examination, and the report on it was: Hemoglobin content, 15.4 gm. per 100 cc.; erythrocytes, 5,290,000 per cu. mm.; leukocytes, 29,900 per cu. mm.—28 per cent stabs, 62 per cent segmented, 9 per cent lymphocytes and 1 per cent monocytes.

At autopsy the following conditions were noted: Congestion and edema of the lungs; subepicardial and subpleural petechiae; postmortem fluidity of the blood; focal atelectasis of the lungs; congestion of the liver, spleen, and kidneys. The pathologist said that the findings are consistent with death by asphyxia resulting from exposure to a chemical agent.

CASE REPORT NO. 2

The person concerned in the following report was not seen by a physician. The information given here was obtained from the Coroner of Santa Cruz County and the California State Department of Industrial Relations.

A 35-year-old pilot of a crop dusting plane carrying "Vaportone," a powder containing 1.5 per cent tetraethylpyrophosphate (TEPP) was doused with the powder from head to foot when the dust bin flew open at a crash landing after gradual loss of

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Submitted January 24, 1955.

altitude short of the destination. As he crawled out of the open cockpit he refused help from persons who went to his aid, said he was not injured and would not permit them to call an ambulance. He asked for water, drank it, and then immediately complained of illness and asked for a physician. A moment later he slumped to the ground. He died in a very few minutes.

At autopsy, the only finding of significance was that the respiratory passages were thickly coated with the dust. There were no fractures. The cervical spine was especially examined and found intact. The only evidences of injury were a few superficial abrasions.

An ambulance driver, a mortician and a pathologist all complained of headache and stomach cramps after handling the body.

The Civil Aeronautics Authority found no evidence that the accident had been the result of mechanical failure. Investigators later learned that the pilot had been known to spray the dust over workers when they had not gotten off the field in time. He had been warned against this practice by the California State Department of Industrial Relations. For a few days before the accident he had complained of headache and visual troubles. His employer had urged him to have a blood test but he had refused.

DISCUSSION

The organic phosphate insecticides were developed during the last war by German chemists incidental to a search for war gases. Although at first used only for larger agricultural units, they are now available in small quantities in many garden supply stores and have created a growing public health problem.

The California State Department of Public Health reported 158 occupationally incurred cases of organic phosphate poisoning in 1953—128 of them from parathion. There were five known fatalities. It is probable there were many other cases not reported.

The organic phosphate insecticides now in common use in California are TEPP, parathion (diethyl-p-nitrophenyl thiophosphate), Demeton or Systox (diethoxy thiophosphoric ester of 2 ethyl mercapto ethanol) and Malethion (dimethoxy dithiophosphate of diethyl mercapto succinate).

In pure form they are amber to straw-colored oily liquids, stable at room temperatures.[16] Parathion hydrolyzes very slowly and has a higher degree of solubility in lipids than do the other preparations.[10] These properties, which make it the most dangerous of the group, have also led to its acceptance as the insecticide of choice for most crops. Demeton is a "systemic" insecticide. As it will control pests in all parts of the plants when applied to any one part, it is of obvious value in inedible crops and its use has so far been restricted to cotton. Malethion is the least toxic of the group mentioned.

These compounds are readily absorbed from skin or mucous membranes and are toxic by contact, inhalation, ingestion or injection. Their toxic effect is due to their ability to inactivate cholinesterase. Acetyl choline serves as a chemical mediator for the nerve impulse at parasympathetic synapses. It is normally destroyed within one hundredth of a second by cholinesterase. As a result of this inhibition, acetyl choline accumulates in the tissues, producing effects resembling those of prolonged stimulation of cholinergic nerves.

The effect of a single dose of TEPP and parathion is partly reversible for the first several hours. Repeated doses produce a progressive and largely irreversible inactivation of cholinesterase.[6] Plasma cholinesterase is restored, presumably by the liver, at the rate of approximately 14 per cent of original activity on the first day, 9 per cent on the second day and 2 to 6 per cent on subsequent days until normal levels are restored in about three weeks. Restoration of erythrocyte and tissue activity parallels the rate of erythrocyte replacement and requires about three months (1 per cent per day).[11]

After absorption, the plasma cholinesterase may fall to nearly zero and that of the erythrocytes to below 10 per cent of normal activity before symptoms appear. Symptoms may disappear as the erythrocyte activity increases above 15 per cent of normal.[12] Thus, repeated exposures may lower cholinesterase levels to a dangerous point without producing symptoms; then a subsequent, perhaps mild, exposure may be fatal.

The effects of acetyl choline are called *muscarinic* when the site of action is at glands and smooth muscle and *nicotinic* when it is at ganglia, skeletal muscle and the central nervous system. The earliest muscarinic effects are anorexia and nausea, which may be aggravated by smoking. Soon afterward vomiting, abdominal cramps and excessive perspiration and salivation may occur. Heavy exposure will cause diarrhea, tenesmus and incontinence. The blood pressure tends to rise, the pupils to constrict; and increased bronchial secretion leads to pulmonary edema and cyanosis.

The nicotine-like effects manifest themselves shortly after the onset of nausea and vomiting. At first, fasciculations of the eyelids and tongue are seen. These spread to involve the muscles of the face and neck and become generalized. Extraocular muscle involvement may cause nystagmus.

The earliest central nervous system effects are giddiness, restlessness and anxiety and may be noted even before the onset of nausea and vomiting. Headache and insomnia follow. Severe exposure causes ataxia, disorientation, drowsiness and slurring speech. Coma precedes death.[8]

The muscarinic symptoms are first to appear and they respond readily to moderate doses of atropine. The later occurring nicotinic effects require much larger doses for control.

These facts have led to an unfortunate sequence of events which is well illustrated in many of the published case reports[1, 2, 8, 9, 12] and by the case here reported. The patient is first seen with nausea, vomiting, excessive perspiration and salivation, and miosis. He is given a "safe" dose of atropine and in a few minutes he is better. The pupils have dilated and the excessive flow of secretions has been relieved. A short time later, however, the more dangerous nicotinic and central nervous system effects come into play and unless treatment is prompt and vigorous the patient is soon dead.

The acute emergency lasts from 24 to 48 hours and the patient must be closely watched.

Atropine is the only known specific medication. It is very effective against the muscarinic effects, but much less so against the nicotinic and central nervous system effects. It can be used in dosage which would be dangerous were it not for the fact that a physiological antagonist is already present in the tissues in relatively large quantities. Two milligrams should be administered when the patient is first seen and this dose should be repeated at least every 15 minutes until atropine effects are noted. It would seem safe to say that as long as the pupils are miotic the patient has not received enough atropine. The only seriously poisoned persons who have survived have received large doses, and in none of the fatal cases thus far reported were such doses given. One patient who lived received 14.2 mg. in the first two hours and ten minutes.[15]

Since peripheral respiratory failure precedes cardiac failure, life can be prolonged and chances of survival enhanced by the use of artificial respiration when indicated. Oxygen should be administered if cyanosis occurs and a clear airway should be maintained by means such as postural drainage or suction. Although bronchiolar spasm also plays a part in respiratory failure, tracheotomy should be done if cyanosis does not disappear in response to these measures. The use of a positive pressure apparatus such as the Bennett machine may be lifesaving. Du Bois demonstrated that animals can be protected against anticholinesterase drugs by atropine. The degree of protection is greatly increased if the animals are also kept under artificial respiration. "Almost indefinite amounts of parathion up to 140 mg. per kg. of body weight were given in divided doses without visible effects to the animal," Du Bois said. He also observed that with doses beyond those required to cause respiratory failure, pronounced bradycardia developed, "the tracing showing a greatly exaggerated pulse pressure suggesting A.V. block."[4] This suggests a possible clinical value in the prophylactic use of Isuprel® (isopropylarterenol) in cases of severe poisoning and a possible danger in the use of digitalis.

Removal of clothing and careful cleansing of the entire skin surfaces should be carried out as soon as the urgent, life-saving measures have been done. Since parathion is hydrolyzed more rapidly by alkali, the use of soapy water with added soda is recommended. If there is any question concerning the possibility of ingestion, gastric lavage should also be done.

It is not safe to administer atropine to an exposed symptomatic patient and allow him to go home unless he can be carefully observed for the duration of the danger period.

Deichman found Buscopan® somewhat more effective than atropine in treating organic phosphate poisoning in rats.[3] So far as could be determined there are no reports of its use in humans.

Johns and co-workers[14] demonstrated that the convulsant effects of theophylline, theophylline-ethylene-diamine (aminophyllin), and chlorotheophylline are increased six-fold by the anticholinesterase drugs. Therefore, use of them should be avoided. Morphine is also contraindicated, for obvious reasons.

Deaths have been reported from contact with parathion in all phases of its manufacture, preparation and field use. The need for protective clothing and masks by workers concerned and the immediate and careful washing of any areas of contact is obvious. The U. S. Department of Agriculture has issued bulletins containing recommendations as to types of protective clothing and respirators. Careful instruction concerning the dangers involved and methods of protection is mandatory. The distributor ought to assume the responsibility of making certain that purchasers who know only a foreign language, are fully cognizant of these facts.

For reasons previously mentioned, a person who is exposed sufficiently to cause symptoms must avoid further exposure to any organic phosphate until the cholinesterase level returns to what is normal for the individual (or levels off if preexposure level is not known). Three weeks is a practical interval where cholinesterase determinations are not available.

The condition is recognizable even without a history of exposure. A combination of miosis with perspiration and excessive bronchial and salivary secretions should suggest it. Blood cholinesterase determinations are useful not only in diagnosis but as a guide to the degree of exposure in handlers. More recently a method for the detection of p-nitrophenol, an end-product in the metabolism of parathion, has been developed and may replace the slower cholinesterase determinations in diagnosis of poisoning by parathion.[18]

Moderate leukocytosis (15,000 to 20,000 leukocytes per cu. mm.) has been a common finding.[8]

The toxic or fatal dose is related to the size of the individual. A child may die from an exposure that will not produce symptoms in an adult. Experiments with rats have demonstrated a far greater susceptibility to the effects of di-isopropyl fluorophosphate in the infant of the species, supposedly due to lower brain cholinesterase.[7] Chamberlin and Cooke[2] reported a five-month-old infant who became seriously ill three and one-half days after the room in which his diapers had been hanging in an open cloth bag was sprayed by a parathion preparation. Children should never be allowed in the vicinity of spraying operations, and these preparations should never be used as insecticides in the home.

The authors know of no reports of ill effects from marketed foods which in California are checked for residues at the wholesale level by the State Department of Agriculture.

Pilots using these products in dusting operations are doubly endangered. The hoppers into which the dust is loaded are usually located in front of the cockpit. If the hopper is not properly sealed, the pilot may have great exposure in a short time. A dosage which would not otherwise be fatal may cause a pilot to lose control and crash his plane.[13, 19]

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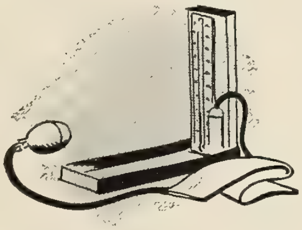

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EDITORIAL

Poliomyelitis Vaccination

Surgeon general scheele and Associate Director of Laboratories* Shannon conclude their final report "The Public Health Implications in a Program of Vaccination Against Poliomyelitis"† with the statement: "Final decision on the use of vaccine remains the responsibility of individual physicians and health officers."

Millions of words have been written about the current experience with poliomyelitis vaccine. It has been said that not twenty men in the country could successfully negotiate all the ramifications of what actually happened. Few physicians are in a position to have complete knowledge of this entire affair but it is certainly necessary for them to study the facts and conclusions which have been presented in order to arrive at a decision which will guide them in discharging their responsibility for the administration of vaccine. Many theoretical conclusions must be decided by expert virologists but very many of the observations are entirely intelligible to the alert clinician.

The Francis evaluation of the field trials described a carefully planned scientific experiment on a fairly large scale. This report was completely reassuring in the matter of safety, it detailed a convincingly encouraging response in antibody production and supported the belief that a considerable degree of clinical protection was thus established, especially against the severer manifestations of poliomyelitis.

Transition to mass production of the vaccine, approval by the Public Health Service, and institution of nationwide administration were impetuously effected. There was little time or opportunity for examination of the field trial results by those with the ultimate responsibility of carrying out the authoritarian directive for mass immunization. Some protests were heard but many were silenced by the hope that we stood on the brink of an effective control measure for this serious problem. Difficulties which might have been anticipated were not foreseen. Physicians cannot lightly escape responsibility but voices once stilled cannot now be raised too loudly in protest.

Although the Francis Report promised complete safety of the vaccine, it was quickly discovered that under the conditions of routine application this assurance was not entirely borne out. Paralysis occasionally followed vaccination and the time interval of its appearance and localization to the injected extremity paralleled the experience of twenty years ago in which a crude vaccine later found to contain live virus was used on a small scale for similar purpose. A further disturbing development was the appearance of secondary cases of paralytic disease in the families of inoculated children.

These bad effects were most frequent with the product of a single manufacturer but were not encountered in all lots from this source prepared by identical methods nor even in any great number of children injected with the same lot of vaccine. Although most of these unpleasant incidents occurred with vaccine from this single source, other sequelae of persuasive similarity followed the use of vaccines produced by other manufacturers.

Early efforts to explain away these difficulties on the basis of pure chance, or from the use of vaccine during the incubation period of naturally acquired disease, or from the possible provocative effect of any injection in precipitating paralytic symptoms all quickly collapsed and almost every observer was soon convinced that these particular results could only be due to the persistence in the vaccine of some live virus which had escaped the killing effect of formalin.

The mass administration of vaccine was inadvertently a controlled experiment in which paralytic poliomyelitis occurred in numerous patients injected with some lots from one manufacturer, in occasional preparations from at least one other laboratory, and perhaps not at all from still other sources, the observed number of cases being sufficiently great to indicate that the sequelae were owing to essential differences in the vaccine preparations. One of the most convincing items of clinical evidence that live virus must have persisted in some of the preparations was that relatively so many children age one to two years — during maximal susceptibility — should develop the disease following vaccination, the presence of live virus thus being demonstrated in a subject more sensitive than tissue culture or the laboratory monkey. The final bit of evidence was afforded by the isolation of live virus by Gebhardt from a lot of vaccine known to have been used for vaccination in a case in which paralysis followed injection.

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*Of the National Institutes of Health.

†J.A.M.A., 158:1249, August 6, 1955.

A desperate effort was made to pin the responsibility to a single manufacturer—Cutter—but all of the vaccine produced followed carefully prescribed procedure. To date there has been no evidence introduced that there was any failure of conformance with established safety standards in the preparation of any of the suspect vaccine and it seems entirely likely that any discovered defect would have been quickly reported. The inescapable conclusion is that standard methods of production were in some way at fault and that inadvertent departure from these standards was not responsible for impaired safety.

The safety of some lots of vaccine as compared with those which caused trouble may have been due to slight modifications in procedure well within the framework of that laid down for the manufacturer. There was certainly some variation in the actual length of time during which the virus was exposed to formalin. Reportedly the formalin was not finally removed from one preparation which proved safe. Merthiolate was added as a preservative to the product of one manufacturer but when this addition was shown to interfere with the antigenicity of type I virus in the field trials, versine was added to overcome this interference. It has been suggested that the inclusion of Merthiolate was an unsuspected safety factor* whatever its effect on antigenicity. Still another commercial vaccine contained Phemerol, a quarternary ammonium compound not only bacteriostatic (perhaps virocidal) but also a dispersing agent which might afford increased safety through better dilution of occasional surviving live virus particles.

There are extant the opinions of many virologists that stimulation of antigenic response is afforded only by live virus and that the effectiveness of "killed" vaccine depends upon the persistence of at least a very little live virus. Dr. Salk's contribution to the contrary is almost unparalleled. Thus the safety of an effective vaccine as demonstrated in the field trials might depend upon extreme dilution and dispersion of a very few remaining live particles.

Safety requirements have now been severely revised and the assurance of harmlessness is now quite convincing. It remains to be proved that the antigenicity of present vaccine will equal the results reported in the field trials.

Many matters affecting the field trials still bear careful scrutiny:

1. It remains for experience to demonstrate that rise in serum antibodies invariably parallels clinical protection. This seems to be a reasonable assumption and is at least indicated by the field trials, but such a conclusion cannot be a product of pure logic and is arrived at only by the passage of time and continued observation.

2. In only a small number of the persons exposed to poliomyelitis does the disease spontaneously develop, and it is known that many acquire infection without ever showing signs of illness. It is not altogether improbable that those with maximal constitutional susceptibility may by the very ones least protected by vaccination.

3. The Francis Report indicated much less protection in children six years old or younger as the result of vaccination, with an improved response at older ages. It would thus appear that vaccine is far more effective as a booster than as an instrument for basic immunization.

There are many other considerations which one might enumerate and which merit—and will certainly receive—continued study. Live vaccines using avirulent viruses may prove to be the final answer, but for this almost endless research is required. It seems unfortunate that the proposal of Sabin, Enders, and others that avirulent type I virus be substituted for the Mahoney strain (thus being essentially nonparalytic even if surviving formalin treatment) was rejected in the interests of haste.

Mass immunization this year might better have been proposed as a continued experiment to extend the field trials of 1954 rather than being proposed *ex cathedra* as the accomplished method for universal protection. A considerable and sufficient proportion of the public could then have chosen to accept the uncertainties and even the unsuspected risks of a protective measure which offered reasonable promise of success and would then have been better prepared for some degree of disappointment. To the extent that vaccine was given within a restricted age group, controls would automatically be set up in adjoining age groups between which comparisons could be made. In California maximum incidence is from age four to six and comparisons with those vaccinated at age six to eight might afford data of great value.

Should vaccine now be given as it becomes available? Each physician must decide this question himself, for there is now enough information to justify conclusions one way or another. Vaccine need not be impatiently rejected; indeed it must not be, for the careful and scientific studies of our experience to date hold much promise of the eventual development of an innocuous and effective immunizing agent. There is now convincing evidence of the safety of present preparations. Final conclusions regarding antibody response, and clinical protection will be served by analysis of all accumulating experience. More than seven million children have been vaccinated in the United States this summer and an additional one million in Canada. Much can be learned from the results in these children. It is unlikely that the laborious pathway which has led to success in smallpox, diphtheria, tetanus and pertussis can be completely bypassed even by the use of modern calculating machines.

Such errors of judgment as have been made have occurred in all good faith, and some degree of failure should not be permitted to interfere with a cooperative effort of the public and the medical profession in a sincere attempt to solve this problem.

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*Poliomyelitis Vaccine, Pediatrics, 15:788, June 1, 1955.

California MEDICAL ASSOCIATION

NOTICES & REPORTS

Executive Committee Minutes

Tentative Draft: Minutes of the 251st Meeting of the Executive Committee of the California Medical Association, Sir Francis Drake Hotel, San Francisco, July 20, 1955.

The meeting was called to order by Chairman Heron in the Tamalpais Room of the Sir Francis Drake Hotel, San Francisco, on Wednesday, July 20, 1955, at 4:00 p.m.

Roll Call:

Present were President Shipman, President-Elect Charnock, Speaker Doyle, Council Chairman Lum, Auditing Committee Chairman Heron and, ex-officio, Secretary Daniels and Editor Wilbur.

A quorum present and acting.

Present by invitation were Messrs. Hunton, Thomas, Clancy and Gillette of C.M.A. staff, legal counsel Hassard, consultant Waterson, Mr. K. L. Hamman of California Physicians' Service and Drs. A. A. Morrison, Robert C. Martin, Dan O. Kilroy and Edward C. Rosenow, Jr.

1. *Membership:*

(a) On motion duly made and seconded, members who had become delinquent and had subsequently paid their current dues were reinstated.

(b) On motion duly made and seconded in each instance, eight (8) applicants were voted Retired Membership. These were: J. Elliott Royer, Alameda-Contra Costa County; Roland Cummings, Riley Russell, Los Angeles County; Ira J. Clark, R. Manning Clarke, San Diego County; William H. Banks, George J. McChesney, San Francisco County; and Edward C. Faulkner, San Joaquin County.

(c) On motion duly made and seconded in each instance, 23 applicants were voted Associate Membership. These were: Jacob L. Bernstein, Milton G. Crane, David N. Grey, G. David Hartson, John Reynolds, Seth W. Smith, Ellen Mae Vogel, R. Stanley Woodward, Bruce V. Leamer, George B. Lewis, Los Angeles County; Harry K. Danielson, Zana Burkhart, Napa County; Bill C. Garoutte, Robert J. Roantree, David H. Wilson, San Francisco County; Thomas Doody, San Joaquin County; Willard S. Osibin, Herbert O. Swartout, San Luis Obispo County; Oliver M. Henderson, Santa Clara County; Harvey E. Robins, Santa Cruz County; Ynez C. Tyler, Solano County; and Ivan N. Radeff, Cecil P. Jones, Ventura County.

(d) On motion duly made and seconded in each instance, reductions of dues were voted for 21 applicants for reasons of postgraduate study or protracted illness.

2. *Rollen Waterson Associates:*

Mr. Waterson requested the approval of Stanford Research Institute as the body to make a pilot study of physician-patient relationships, using San Mateo County as the initial testing ground. After considerable discussion, it was agreed to defer action on this request at this time but to bring the matter before the Council after additional information has been secured.

3. *Crippled Children's Services:*

Dr. Robert C. Martin, one of the Association's appointees to a special committee to assist the State Department of Public Health evaluate the qualifications of certificated osteopathic specialists for service under the Crippled Children's Act, reported for

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the committee. The report showed that the Association representatives had been given only printed criteria and had had no opportunity to investigate the actual status of osteopathic specialty training facilities. On motion duly made and seconded, it was voted to recommend to the Council that the committee be continued and instructed to pursue its studies along practical as well as theoretical lines.

4. *Audio-Digest Foundation:*

Mr. K. L. Hamman reported that Audio-Digest Foundation had reduced its operating expenses and that for the first six months of 1955 had shown a net profit of $18,828.24. For the past few months, he said, the corporation has been operating on a profitable basis and had built up cash reserves to guarantee performance on delivery contracts paid in advance by subscribers. The rate of subscriber renewal, on the basis of very little promotion, now runs about 65 per cent.

In the expectation of potential competition to this service, Mr. Hamman expressed the belief that the corporation's profits for the next year or two should be devoted primarily to improving the quality and service of its product.

Mr. Hamman and Mr. Hassard outlined the terms of a contract just negotiated between Audio-Digest Foundation and Mr. J. L. Pettis, under the terms of which Mr. Pettis will receive an insurance contract on his life now held by the Trustees of the California Medical Association, on which Audio-Digest Foundation will pay the annual premiums. This transaction would supersede any previous agreements between Mr. Pettis and the Foundation. Approval of the transfer of the insurance policy would have to be approved by the Trustees of the California Medical Association.

On motion duly made and seconded, it was voted to approve the contract signed between Audio-Digest Foundation and Mr. J. L. Pettis and to recommend to the Trustees of the California Medical Association that they transfer the insurance policy now held on the life of Mr. Pettis to Audio-Digest Foundation, subject to payment by the latter to the Trustees of the C.M.A. the accumulated cash value on this policy.

5. *Hospital Construction Funds:*

A message from the Los Angeles County Medical Association, asking the C.M.A. to urge the State Department of Public Health to allocate federal funds for hospital construction only to new hospitals, was read and discussed. On motion duly made and seconded, it was voted to reiterate to the State Department of Public Health the policy voiced by the Association for several years of urging that funds available for hospital construction be directed at nonprofit organizations rather than governmental units.

6. *Los Angeles Medical Convention:*

A request from the Los Angeles County Medical Association for commendation of a medical convention planned in that city for early 1956 was read and discussed. On motion duly made and seconded, it was voted to refer this request to the Council.

7. *Legal Department:*

(a) Mr. Hassard reported that Mr. Pat McGee, attorney from Van Nuys, had been named to referee a disciplinary case in Ventura County; decision in this case has not yet been reached.

(b) Mr. Hassard reported that a brief had been filed in a case involving a dispensing optician who was charged with steering patients to ophthalmologists occupying rented or rent-free space in the optician's building. An appeal from a court decision holding the optician guiltless will be taken by the Board of Medical Examiners and an amicus curiae brief filed by legal counsel for the C.M.A.

8. *C.M.A. Office Arrangements:*

Mr. Hunton reported that additional office space had become available and that further space may later be available; with such added quarters, room would be available for the maintenance of some Association functions which are now carried on in outside quarters. On motion duly made and seconded, approval was voted for acquiring at this time the space now available.

9. *California Medicine:*

Dr. Wilbur reported that Dr. J. Martin Askey had found it necessary to resign as a member of the Editorial Board of CALIFORNIA MEDICINE. At Dr. Wilbur's suggestion and on motion duly made and seconded, it was voted to appoint Dr. Edward W. Boland of Los Angeles a member of the Editorial Board, to represent internal medicine and to succeed Dr. Askey.

10. *Committee Appointments:*

On motion duly made and seconded, it was voted to appoint Drs. Frederick G. Hollander of San Diego, Henry Dean Hoskins of Oakland and Donald C. Harrington of Stockton as members of the Committee on Principles of Fee Schedules, a committee of the Commission on Medical Services.

11. *Payment of Expenses:*

On motion duly made and seconded, it was voted to meet the expenses of a committee chairman who filed expense vouchers in 1955 for work undertaken in prior years.

12. *Mental Hygiene:*

(a) In response to a request from the State Director of Mental Hygiene for naming of a committee to meet informally with him, it was regularly moved, seconded and voted to ask the Committee on State Medical Services (Drs. F. E. West, Henry A. Randel and Hollis L. Carey) to arrange such meetings, after first conferring with the chairman of the Commission on Public Policy.

(b) In regard to the Committee on Mental Health, provided for in the revised By-Laws but not yet named, it was regularly moved, seconded and voted to ask the Council Chairman to consider making this committee somewhat larger than other committees and to have its membership include physicians in specialties other than psychiatry.

(c) A report on the current status of the State Alcoholic Rehabilitation Commission was read and ordered referred to the Committee on Mental Health as soon as that body is named.

13. *Time and Place of Next Council Meeting:*

It was agreed that the next meeting of the Council would be held in Los Angeles on Sunday, August 28, 1955.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 8:55 p.m.

IVAN C. HERON, M.D., *Chairman*
ALBERT C. DANIELS, M.D., *Secretary*

Standardized Insurance Forms Ready for Use

After many months of negotiations the C.M.A. Commission on Medical Services has obtained the approval of commercial insurance companies for the use of standardized insurance claims forms.

The new forms, numbered GD-1 and ID-1, are made up to cover claims for patients in group insurance contracts and those with individual insurance. Both are standardized for the use of the insurance companies and both are printed in typewriter-spaced style for ease in handling.

Use of the new forms will eliminate much of the confusion created by the present multiplicity of forms, each of which must be reviewed before it can be filled in. Where each commercial insurance company today has its own individual claims form, the new forms will supply a single style which will be recognized by the carriers.

Samples of the new forms have been sent to each member of the C.M.A., and the insurance companies will distribute copies to physicians. Current stocks of forms must be exhausted before a general distribution of the new items is made by the insurance companies but it is anticipated that within a few months the new standardized forms will be in general use.

Physicians who wish to start using these new forms at once may purchase them in pads of 100 at a cost of $1 a pad. Orders should be sent to Reynard Press, 2700 Nineteenth Street, San Francisco 10. Please remember that there are two forms, one for group coverage and one for individual insurance.

While these new forms will not completely eliminate the use of individual insurance claims forms, they will certainly be useful in the great bulk of these cases. The Health Insurance Council, which worked with the C.M.A. Commission on Medical Services in developing these forms, represents about 90 per cent of the commercial accident-health insurance business written in California and the member companies of that group have agreed to accept these uniform claims blanks in place of their own present forms. Some service plans and governmental agencies will probably continue using their own systems of claims forms.

CALIFORNIA MEDICAL ASSOCIATION

Annual Meeting

Ambassador Hotel

LOS ANGELES

April 29 - May 2, 1956

Papers for Presentation

If you have a paper that you would like to have considered for presentation, it should be submitted *to the appropriate section secretary* (see list on this page) not later than November 19, 1955.

Scientific Exhibits

Space is available for scientific exhibits. If you would like to present an exhibit, please write immediately to the office of the California Medical Association, 450 Sutter Street, San Francisco 8, for application forms. To be given consideration by the Committee on Scientific Work, the forms, completely filled out, must be in the office of the California Medical Association not later than December 1, 1955. (No exhibit shown in 1955, and no individual who had an exhibit at the 1955 session, will be eligible until 1957.)

SCIENTIFIC PAPERS

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RADIOLOGY	**Austin R. Wilson**	540 North Central Avenue, Glendale 3
UROLOGY	**Edmund Crowley**	1930 Wilshire Boulevard, Los Angeles 57

In Memoriam

Blackwelder, Glenn E. Died in Paradise, July 23, 1955, aged 34, of pneumonia. Graduate of the College of Medical Evangelists, Loma Linda-Los Angeles, 1947. Licensed in California in 1947. Doctor Blackwelder was a member of the Butte-Glenn Medical Society.

✤

Butler, Edmund W. Died in Sebastopol, July 31, 1955, aged 69, of gastric hemorrhage. Graduate of the Cooper Medical College, San Francisco, 1911. Licensed in California in 1911. Doctor Butler was a member of the San Francisco Medical Society.

✤

Daniele, Joseph A. Died in Crestline, July 27, 1955, aged 46. Graduate of the University of California Medical School, Berkeley-San Francisco, 1936. Licensed in California in 1936. Doctor Daniele was a member of the Los Angeles County Medical Association.

✤

Davis, Henry L. Died in San Francisco, July 6, 1955, aged 65, of carcinoma of head of pancreas. Graduate of Tufts College Medical School, Boston, Massachusetts, 1914. Licensed in California in 1921. Doctor Davis was a member of the San Francisco Medical Society.

✤

Frick, Donald J. Died in Los Angeles, July 26, 1955, aged 81. Graduate of the University of California Medical School, Berkeley-San Francisco, 1899. Licensed in California in 1899. Doctor Frick was a retired member of the Los Angeles County Medical Association, the California Medical Association, and an associate member of the American Medical Association.

✤

Hahn, LeRoy W. Died in Berkeley, July 10, 1955, aged 58, of cerebral vascular accident. Graduate of the University of California Medical School, Berkeley-San Francisco, 1928. Licensed in California in 1928. Doctor Hahn was a member of the Alameda-Contra Costa Medical Association.

✤

Hammer, Howard J. Died in San Francisco, August 3, 1955, aged 46, of coronary artery disease. Graduate of Wayne University College of Medicine, Detroit, Michigan, 1935. Licensed in California in 1947. Doctor Hammer was a member of the San Francisco Medical Society.

✤

Hanson, Joel H. Died in Redwood City, May 30, 1955, aged 62, of rheumatic heart disease. Graduate of Jefferson Medical College of Philadelphia, Pennsylvania, 1918. Licensed in California in 1919. Doctor Hanson was a member of the San Mateo County Medical Society.

✤

Jacobson, Julian C. Died in Santa Cruz, July 1, 1955, aged 49, of acute coronary thrombosis. Graduate of the University of Minnesota Medical School, Minneapolis, 1935. Licensed in California in 1936. Doctor Jacobson was a member of the Santa Cruz County Medical Society.

Leake, Norman A. Died in Long Beach, July 6, 1955, aged 78. Graduate of the University of California Medical School, Berkeley-San Francisco, 1912. Licensed in California in 1912. Doctor Leake was a retired member of the Los Angeles County Medical Association, the California Medical Association, and an associate member of the American Medical Association.

✤

O'Connor, Roderic P. Died in Carmel, July 6, 1955, aged 77, of myocardial infarction. Graduate of the University of Pennsylvania School of Medicine, Philadelphia, 1900. Licensed in California in 1914. Doctor O'Connor was a member of the Alameda-Contra Costa Medical Association, a life member of the California Medical Association, and an associate member of the American Medical Association.

✤

Ross, Floyd F. Died in Berkeley, July 6, 1955, aged 54, of cardiac failure, due to occlusion left coronary artery due to arteriosclerosis. Graduate of Howard University College of Medicine, Washington, D. C., 1927. Licensed in California in 1945. Doctor Ross was a member of the Alameda-Contra Costa Medical Association.

✤

Shepherd, Ford. Died in Santa Cruz July 20, 1955, aged 42. Graduate of Stanford University School of Medicine, Stanford University-San Francisco, 1940. Licensed in California in 1940. Doctor Shepherd was a member of the Santa Cruz County Medical Society.

✤

Susnow, David A. Died in San Francisco, July 20, 1955, aged 49, of coronary artery disease. Graduate of the University of California Medical School, Berkeley-San Francisco, 1930. Licensed in California in 1930. Doctor Susnow was a member of the San Francisco Medical Society.

✤

Vogel, Philip. Died in San Francisco, July 15, 1955, aged 44, of Hodgkin's disease. Graduate of Rush Medical College, Chicago, Illinois, 1936. Licensed in California in 1938. Doctor Vogel was a member of the San Francisco Medical Society.

✤

Walker, Arthur W. Died in Laguna Beach, July 5, 1955, aged 81. Graduate of the University of Minnesota Medical School, Minneapolis, 1909. Licensed in California in 1922. Doctor Walker was a retired member of the Riverside County Medical Association, the California Medical Association, and an associate member of the American Medical Association.

✤

Yates, Joseph E. Died in Sacramento, July 19, 1955, aged 74, of cerebral vascular accident. Graduate of the College of Physicians and Surgeons of San Francisco, 1904. Licensed in California in 1904. Doctor Yates was a member of the Sacramento Society for Medical Improvement, a life member of the California Medical Association, and an associate member of the American Medical Association.

WOMAN'S AUXILIARY

TO THE CALIFORNIA MEDICAL ASSOCIATION

Your Auxiliary's Role in American Medical Education Foundation

In 1951, the National Woman's Auxiliary to the A.M.A. took on the support of the American Medical Education Foundation as one of its major projects. In doing so, it embraced and endorsed the A.M.E.F. objectives: (1) to interpret the needs of medical education to the American public; (2) to encourage the advancement of medical training standards in the United States; (3) to preserve academic freedom in medical schools as well as equality of educational opportunity; (4) to foster the training of a sufficient number of competent physicians to meet the nation's health needs.

As a first step toward working with the A.M.E.F., your Auxiliary got acquainted with its background as well as its current problems.

Yesterday's Problems . . . Back in 1905, the A.M.A. faced a critical situation. Medical education in the United States was lagging far behind that in many European countries. The standards of the more than 160 medical schools then functioning were haphazard. There were great differences in this regard between schools. Some of the schools were accepting entrants without complete high school educations.

How to remedy this? The first big step was taken by setting up an A.M.A. Council on Medical Education. The second big step was taken by publishing, in 1910, the results of a study made jointly by the Carnegie Foundation for the Advancement of Teaching and the A.M.A. Council. This report revolutionized American medical education. It brought about standards both for the medical schools and for the entering students which have become second to none in the world. It resulted in the weeding out of many inadequate medical schools. It gave the impetus which American medical education needed to start on its way toward the phenomenal strides it made in the decades that followed.

Today's Problems . . . Today we can take stock of these strides with pride: The unparalleled advances made in American medical research; the high caliber of our practicing physicians; our American standards of health—the highest in the world.

In order to maintain our top-notch standards, we need a great deal of money. The average cost of financing the American education of a practicing physician today runs between $10,000 and $12,000. We are now graduating close to 7,000 medical students each year. Our annual "crop" of medical graduates, then, is costing between $70,000,000 and $84,000,000. Plans call for increasing the number to 7,500 in 1960. Our 79 accredited medical schools have, in many cases, woefully inadequate facilities.

Aid in the financing of our medical schools, then, is a crucial need. Your Auxiliary is proud to share in the responsibility for meeting that need through its work with the A.M.E.F.

To Increase Public Understanding . . . One of our most important functions is to acquaint not only our own members but the public with the complexities of the current situation in medical education. There are many common misconceptions. Few people realize that today we have the largest annual turn-out of graduating physicians, more approved medical schools and the largest medical enrollment that we have ever had. The vital importance of medical education to the health and welfare of the American people is another factor we must help publicize. Back of the successful control of any disease are the years of study and research which our medical schools make possible.

Because recent exigencies in some of our medical schools have called for urgent action, the A.M.A. is supporting current legislation which would also provide for federal funds to be used for physical facilities only on a "one-time" appropriation basis. Aware of the pitfalls in all-out federal subsidization, your Auxiliary is working with you for this proposed legislation.

Fund-Raising Projects . . . Of equal importance is the role your Auxiliary plays in fund-raising for the A.M.E.F. Last year, here in California, we raised nearly $5,300. The National Auxiliary contribution to the A.M.E.F. topped $80,000. Most county auxiliaries have a fund-raising project to help support the A.M.E.F. Last year, 12 of 30 county auxiliaries in California met or exceeded their A.M.E.F. quotas. Only three failed to contribute. Two counties, Alameda and Los Angeles, donated over $1,000 each, and Sonoma County gave over $500, more than $1 per member.

All sorts of methods of fund-raising are employed to get funds for A.M.E.F. Some Auxiliaries add $1 to their annual dues and earmark it for A.M.E.F.; others use white elephant sales, parties or dances to raise money. Donations "in memory" or to mark special events can be made through your Auxiliary. One notable effort was instituted by an out-of-state auxiliary which held a "dishrag party"; this set in motion the crocheting of dishrags by Auxiliary members all over the country. Their sale raised more than $15,000.

This Year's Program . . . Your Auxiliary plans for the coming year call for the raising of funds to top those of last year. We aim for at least the $6,000 mark in A.M.E.F. donations. Furthermore, we shall continue to bend our efforts to keep ourselves—and the public—aware of the crucial needs of medical education, and of the great contribution which it makes to American life today.

NEWS & NOTES

NATIONAL • STATE • COUNTY

LOS ANGELES

Dr. Willoughby J. Rothrock has been appointed medical director of the Los Angeles City Health Department. The department's services in adult health, communicable disease control, laboratory, maternal and child health and public health nursing will be under his administrative direction. Prior to the present appointment, Doctor Rothrock was director of the tuberculosis control service and for nine months served as the Central District health officer.

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Alvin G. Foord, M.D., clinical professor of pathology, University of Southern California, will lecture at the 16th annual convention of the California Association of Medical Laboratory Technicians, to be held in the Statler Hotel, Los Angeles, October 28-30. His address is titled, "The Abnormal Lymphocyte: Its Occurrence and Significance." Persons interested in attending should write Miss Barbara Holmes, 226 Fair Oaks Avenue, Apartment D, South Pasadena.

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The National Multiple Sclerosis Society has provided a grant of $9,324 to Dr. Cyril B. Courville, College of Medical Evangelists professor of neurology, for **research into the destruction of nerve sheaths in the brain and spinal cord.** Dr. Courville recently announced results of earlier research which showed a relationship between lack of oxygen at birth and brain damage that results in multiple sclerosis.

SAN FRANCISCO

The **Seventh Annual Scientific Assembly of the California Academy of General Practice** will be held at the Sheraton-Palace Hotel in San Francisco on October 9-12, 1955. A total of twenty-two papers will be presented covering medical, obstetrical and surgical subjects.

Seven of the speakers on the program are from out-of-state. They are Joe Vincent Meigs, M.D., Boston; Edward H. Rynearson, M.D., professor of medicine at the Mayo Foundation; Perry S. MacNeal, M.D., Philadelphia; Charles W. McLaughlin, Jr., M.D., Nebraska Medical School; Edward S. Judd, Jr., M.D., the Mayo Foundation; Goodrich C. Schauffler, M.D., lecturer on gynecology from the University of Oregon; and William H. Gordon, M.D., Lubbock, Texas.

Physicians who are not members of the American Academy of General Practice may attend this meeting upon payment of a $5 registration fee. Further information may be obtained from Dr. John G. Walsh, president, California Academy of General Practice, 461 Market Street, San Francisco.

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Newly elected officers of the **Allergy Foundation of Northern California, Inc.**, are: Chairman of the board of governors, Dr. M. Coleman Harris, San Francisco; vice-chairman, Dr. Grace Talbott, San Francisco; secretary-treasurer, Dr. Albert Rowe, Jr., Oakland.

Program for the **26th Annual Postgraduate Symposium of the San Francisco Heart Association,** which is to be held October 5-7 in the St. Francis Hotel, San Francisco, follows:

WEDNESDAY MORNING, OCTOBER 5, 1955
9:00 a.m.-12:00 m.

Electrocardiography and Vectorcardiography

Presiding: David A. Rytand, M.D.

9:00-9:45 a.m.—The Nature of ST and T Wave Changes—Myron Prinzmetal, M.D.

9:45-10:30 a.m.—Value of Vector Methods and Vectorcardiograms in Clinical Cardiography — Franklin D. Johnston, M.D.

10:30-10:45 a.m.—Recess. Time to visit the exhibits.

10:45-12:00 m.—Diagnostic Implications of Electrocardiography and Vectorcardiography—Panel.

Moderator: David A. Rytand, M.D.

Participants: Franklin D. Johnston, M.D., Myron Prinzmetal, M.D., Arthur Selzer, M.D., Maurice Sokolow, M.D.

WEDNESDAY AFTERNOON, OCTOBER 5, 1955
1:30 p.m.-5:00 p.m.

Session on Congenital Heart Disease

Presiding: Joseph Davis, M.D.
President, Northern California Pediatric Society

1:30-2:15 p.m.—Basic Anatomic Abnormalities in Congenital Malformations of the Heart—Edith L. Potter, M.D.

2:15-3:00 p.m.—Some Observations on the Vascular Pedicle—D. Evan Bedford, M.D.

3:00-3:15 p.m.—Recess. The exhibits will interest you.

3:15-4:00 p.m.—New Techniques for Laboratory Diagnosis of Congenital Heart Disease—Elliot V. Newman, M.D.

4:00-5:00 p.m.—Treatment of Congenital Heart Disease—Panel.

Moderator: Mary B. Olney, M.D.

Participants: D. Evan Bedford, M.D., Frank Gerbode, M.D., Sanford E. Leeds, M.D., Elliot V. Newman, M.D., Edith L. Potter, M.D., Helen B. Pryor, M.D.

THURSDAY MORNING, OCTOBER 6, 1955
9:00 a.m.-12:00 m.

Pathology and Diagnosis

Presiding: Hilliard J. Katz, M.D.

9:00-9:15 a.m. — President's Address: The Challenge of Clinical Teaching of Cardiology—Hilliard J. Katz, M.D.

9:15-10:00 a.m.—Abnormalities of the Aortic Arch—Edith L. Potter, M.D.

10:00-10:50 a.m.—Clinical Pathology of the Pulmonary Artery—D. Evan Bedford, M.D.

10:50-11:10 a.m.—Recess. Time to visit the exhibits.

11:10-12:00 m.—Some Remarks About Stethoscopes and Heart Murmurs—Franklin D. Johnston, M.D.

THURSDAY AFTERNOON, OCTOBER 6, 1955
1:30 p.m.-5:00 p.m.

Session on Coronary Artery Disease

Presiding: Kenelm W. Benson, M.D.

1:30-2:15 p.m.—Evolution of Our Conceptions of Angina Pectoris and Coronary Disease—D. Evan Bedford, M.D.

2:15-3:00 p.m.—Clinical Applications of Intramural Electrocardiography—Myron Prinzmetal, M.D.

3:00-3:15 p.m.—Recess. Don't forget the exhibits.

3:15-4:00 p.m.—Important Points in the Diagnosis and Management of Patients with Coronary Artery Disease—Franklin D. Johnston, M.D.

4:00-5:00 p.m.—Treatment and Management of Arteriosclerosis and Coronary Artery Disease—Panel.

Moderator: John J. Sampson, M.D.

Participants: D. Evan Bedford, M.D., I. Lyon Chaikoff, M.D., Franklin D. Johnston, M.D., Myron Prinzmetal, M.D., Robert L. Smith, Jr., M.D.

THURSDAY EVENING, OCTOBER 6, 1955

Dinner Meeting

7:00 p.m.—Mural Room, St. Francis Hotel

Presiding: Hilliard J. Katz, M.D., President

New Lamps for Old in Cardiology—D. Evan Bedford M.D.

(The Mural Room will be open at 6:00 p.m. for cocktails)

Friday Morning, October 7, 1955
9:00 a.m.-12:00 m.

Treatment of Heart Disease

Presiding: Mast Wolfson, M.D.

9:00-9:45 a.m.—Principles and Complications of Diuretic Therapy—Elliot V. Newman, M.D.

9:45-10:30 a.m.—Indications for Therapeutic Myxedema—D. Evan Bedford, M.D.

10:30-10:45 a.m.—Recess. Last call to see the exhibits.

10:45-12:00 m.—Panel Discussion.

Moderator: Francis L. Chamberlain, M.D.

Participants: D. Evan Bedford, M.D., Isidore S. Edelman, M.D., John A. Luetscher, Jr., M.D., Elliot V. Newman, M.D., Myron Prinzmetal, M.D.

Friday Afternoon, October 7, 1955
1:30 p.m.-5:00 p.m.

Clinical Session

Colonial Ballroom

Presiding: Arthur L. Bloomfield, M.D.
William J. Kerr, M.D.

Participants: D. Evan Bedford, M.D., Franklin D. Johnston, M.D., Elliot V. Newman, M.D., Edith L. Potter, M.D., Myron Prinzmetal, M.D. Patients with various types of heart disease will be presented by local physicians and discussed by guest speakers.

GENERAL

The annual meeting of the **Western Society for the Study of Sterility** will be held in Palm Springs, California, November 4-6. Attendance is open to all physicians and to persons in allied fields. Dr. Earle Marsh, San Francisco, is program chairman. Dr. Alan Guttmacher of New York will be guest speaker. Advance registration (Fee $10 for non-members) may be made by writing Dr. Edward T. Tyler, secretary-treasurer, 10911 Weyburn Avenue, Los Angeles 24.

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The annual convention of the American College of Gastroenterology will be held at the Shoreland in Chicago, October 24-26.

The **annual course in postgraduate gastroenterology,** under the personal direction of Dr. Owen H. Wagensteen of Minneapolis and Dr. I. Snapper of Brooklyn, will be given on October 27-29 at the Shoreland.

The **scientific sessions** on October 24-26 are open to all physicians without charge. The postgraduate course will only be open to those who have matriculated in advance. Copies of the program and further information concerning the postgraduate course may be obtained by writing to: American College of Gastroenterology, 33 West 60th Street, New York 23, N. Y.

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In a recent letter to Dr. Sidney J. Shipman, president of the California Medical Association, Dr. Howard A. Rusk, chairman of the **American-Korean Foundation,** said: "As we enter the third year of the Korean Medical Education program which has been conducted by the American-Korean Foundation in cooperation with the Office of the Surgeon General to gather **medical books and journals** for Korea, I would like to express our deep gratitude to you for the contribution you have made to the success of this project.

"Through the generous cooperation of physicians, hospitals, state and medical societies and pharmaceutical houses all over the country 122,697 pounds of books and journals have been shipped to Korea since the summer of 1953. Korean institutions who have shared in this valuable gift include Seoul National University, Severance Medical College, Ewha University, Taegu Medical College, Kwangju Medical College and the School of Public Health.

"Anyone having surplus medical literature they desire to donate to the American-Korean Foundation may send it to the Medical Supply Officer, Sharpe General Depot, Tracy Annex, Lathrop, California. The need is still great for all kinds of medical literature. The gift should be plainly marked as a donation to American-Korean Foundation."

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The **Academy of Psychosomatic Medicine** will hold its second annual meeting on October 6-8 at the Plaza Hotel in New York City. The subject of this year's scientific program is "The Psychosomatic Aspects of Drug Administration." There is no registration fee.

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The American Goiter Association again has announced its **annual contest for the Van Meter Prize Award** of $300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held at the Drake Hotel, Chicago, May 3, 4 and 5, 1956, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations, should not exceed 3,000 words in length and must be presented in English. Duplicate typewritten copies, double spaced should be sent to the secretary, Dr. John C. McClintock, 149½ Washington Avenue, Albany, New York, not later than January 1, 1956.

POSTGRADUATE EDUCATION NOTICES

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association. In order that they may be listed here, please send communications relating to your future medical or surgical programs to: Mrs. Margaret H. Griffith, Assistant Director, Postgraduate Activities, California Medical Association, 417 South Hill Street, Los Angeles 13.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Surgical Anatomy, Tuesday evenings, September 20 to November 22, 1955.

Advanced Treatment of Emotional Problems, Thursday evenings, September 22 to December 15, 1955.

Annual Medical Lecture Series, Monday evenings, October 3 to December 19, 1955.

Application of Principles of Industrial Medicine to Private Practice, Wednesday evenings, October 19 to December 14, 1955.

Aviation Medicine, Tuesday, Wednesday and Thursday, October 25, 26 and 27, 1955.

Pediatrics, Thursday, Friday and Saturday, October 27, 28 and 29, 1955.

Three Symposia: Riverside, Wednesdays, September 21, 28 and October 5, 1955—(a) What's New in Medicine; (b) Fevers of Unexplained Origin; (c) Obstetrics.

Three Symposia: San Diego, Wednesdays, October 26, November 2 and 9, 1955—(a) Radioisotopes; (b) Surgery of the Hand; (c) Burns, one-half day; Repair of Superficial Wounds, one-half day.

Contact: Thomas H. Sternberg, M.D., Assistant Dean for Postgraduate Medical Education, U.C.L.A., Los Angeles 24.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

In San Francisco:

Conference on Applied Therapeutics—October 17, 18 and 19.

Conference on Gynecology and Obstetrics—October 20 and October 21.

Ophthalmological Conference—December 5 to December 7.

Postgraduate Surgical Programs in cooperation with Surgical Service of Fort Miley VA Hospital and sponsored by the San Francisco Chapter, American Academy of General Practice. Fort Miley VA Hospital Auditorium, 42nd Avenue and Clement Street, San Francisco. Tuesday evenings, September 20-November 8. Programs available at California Academy of General Practice, 461 Market Street, San Francisco.

In East Oakland:

Medicine for General Practitioners—Tuesday evenings, September 20 to December 6.

In Berkeley:

Postgraduate Institute—Wednesday evenings, Herrick Memorial Hospital, October 19 through November 23.

In San Mateo:

Evening Lectures in Medicine—Thursday evenings, September 22 to December 15.

Contact: Seymour M. Farber, M.D., Head, Postgraduate Instruction, Office of Medical Extension, University of California Medical Center, San Francisco 22.

UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES

In Ventura:

No. 843: Recent Advances in Diagnosis and Treatment. In cooperation with the Ventura County Medical Association. Six weekly lectures beginning September 29-November 3, 1955.

In Los Angeles:

No. 873: Cardiac Resuscitation. Sponsored by the Los Angeles County Heart Association. Each Wednesday throughout the year, U.S.C. Medical Research Building. $30 per session.

Contact: Phil R. Manning M.D., Director of Medical Extension Education, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles 33.

STANFORD UNIVERSITY

Important Recent Advances in Treatment in General Practice. September 12, 13, 14, 1955. 9 a.m. to 4:30 p.m. Fee, $75.00.

Recent Advances in General Surgery and Surgical Anatomy. September 12 through 16, 1955. 8:30 a.m. to 4:30 p.m. Fee, $125.00.

Contact: Office of the Dean, Stanford University School of Medicine, 2398 Sacramento St., San Francisco 15.

COLLEGE OF MEDICAL EVANGELISTS

Announces graduate courses:

General Surgery and Surgical Specialties—October 2 to June 8, 1956.

Internal Medicine—October 2 to June 8, 1956.

Otolaryngology—October 2 to June 8, 1956.

Contact: Chairman, Section on Graduate and Postgraduate Medicine, College of Medical Evangelists, 1720 Brooklyn Ave., Los Angeles 33.

CALIFORNIA MEDICAL ASSOCIATION, POSTGRADUATE ACTIVITIES CIRCUIT COURSES

NORTH COAST CIRCUIT in association with Stanford University School of Medicine:

Eureka—Monday, October 17, 24, 31, November 7.
Ukiah—Tuesday, October 18, 25, November 1, 8.
Woodland—Wednesday, October 19, 26, November 2, 9.
Napa—Thursday, October 20, 27, November 3, 10.

SACRAMENTO VALLEY CIRCUIT in association with University of California School of Medicine, San Francisco:

Dunsmuir—Monday, October 17, 24, 31, November 7.
Chico—Tuesday, October 18, 25, November 1, 8.
Marysville—Wednesday, October 19, 26, November 2, 9.
Auburn—Thursday, October 20, 27, November 3, 10.

POSTGRADUATE INSTITUTES

SOUTHERN COUNTIES in association with the University of Southern California School of Medicine, January 19-20, 1956, at Laguna Beach.

WEST COAST COUNTIES in association with College of Medical Evangelists, March 1-2, 1956, in Carmel.

NORTH COAST COUNTIES in association with University of California School of Medicine, San Francisco, April 5-6, 1956, in Santa Rosa.

SAN JOAQUIN VALLEY COUNTIES in association with the University of California School of Medicine, Los Angeles, mid-April, 1956, in Fresno.

SACRAMENTO VALLEY COUNTIES in association with Stanford University School of Medicine, June 21, 22, 1956, at Lake Tahoe.

Contact: C. A. Broaddus, M.D., Director of Postgraduate Activities, P.O. Box A-1, Carmel, California, or Mrs. Margaret H. Griffith, Assistant Director, California Medical Association, 417 So. Hill St., Los Angeles 13.

Medical Dates Bulletin

SEPTEMBER MEETINGS

SAINT JOHN'S HOSPITAL announces its Seventh Annual Postgraduate Assembly, September 12, 13 and 14, Elk's Club, Santa Monica. All physicians invited to attend. Registration fee, $10.00.

Contact: John C. Eagan, M.D., Director, Postgraduate Assembly, St. John's Hospital, 22nd Street at Santa Monica Blvd., Santa Monica.

SAN DIEGO COUNTY HOSPITAL NINTH POSTGRADUATE ASSEMBLY, September 21 and 22.

Contact: Howard B. Kirtland, Jr., M.D., 3505 Fourth Ave., San Diego 3.

CANCER CONFERENCE, St. Francis Hotel, San Francisco, 2 p.m., September 30, American Cancer Society, California Division.

Contact: Walter E. Batchelder, M.D., 467 O'Farrell St., San Francisco 2.

OCTOBER MEETINGS

CALIFORNIA SOCIETY OF INTERNAL MEDICINE meeting at Biltmore Hotel, Santa Barbara, October 1, 1955.

Contact: Mildred D. Coleman, secretary, 384 Post St., San Francisco.

San Francisco Heart Association, Twenty-sixth Annual Postgraduate Symposium on Heart Disease, at St. Francis Hotel, San Francisco. October 5, 6, 7, 1955.
Contact: 604 Mission St., San Francisco 5.

San Diego County Heart Association Annual Symposium on Heart Disease, U. S. Naval Hospital, Auditorium, Balboa Park, San Diego, October 11.
Contact: H. Jack Hardy, executive secretary, 1651 Fourth Avenue, San Diego.

Los Angeles County Heart Association 25th Annual Symposium on Cardiovascular Diseases, Wilshire-Ebell Theater, Los Angeles, October 12 and 13.
Contact: Los Angeles County Heart Association, 316 So. Bonnie Brae Street, Los Angeles.

The 1955 Scientific Assembly of the California Academy of General Practice will be held in San Francisco, at the Sheraton-Palace Hotel, October 9-12, 1955.
Contact: William W. Rogers, executive secretary, 461 Market St., San Francisco.

State Board of Medical Examiners Written Examination, Sacramento, October 17-20.†

Mid-October—American Board of Psychiatry and Neurology Examinations, San Francisco.
Contact: David A. Boyd, M.D., Secretary, 102-110 Second Avenue, S.W., Rochester, Minn.

NOVEMBER MEETINGS

American Medical Association Clinical Session, 1955, in Boston, November 29 to December 2, 1955.

State Board of Medical Examiners Oral Examination for Reciprocity Applications, San Francisco, November 12.†

State Board of Medical Examiners Oral and Clinical Examinations for Foreign Medical School Graduates, San Francisco, November 13.†

DECEMBER MEETINGS

Medical Alumni Committee of Children's Hospital, San Francisco, December 2, 9:30 a.m.* Prenatal Problems, Departments of Obstetrics, Anesthesia, Pediatrics and Public Health, participating.

American College of Chest Physicians, Ambassador Hotel, Los Angeles, December 5-10. Los Angeles Postgraduate Course on Diseases of the Chest.
Contact: Alfred Goldman, M.D., Chairman, 416 North Bedford Drive, Beverly Hills.

JANUARY MEETINGS

Los Angeles Midwinter Medical Convention, January 3, 4, 5, 1956, Biltmore Hotel, Los Angeles. An 85th anniversary, sponsored by Los Angeles County Medical Association.
Contact: Jerry L. Pettis, Public Relations Counsel, Los Angeles County Medical Association, 1925 Wilshire Blvd., Los Angeles 57. Telephone DUnkirk 5-1581.

Medical Alumni Committee of Children's Hospital, San Francisco, January 14, 1956.* Pediatric Surgery, with special emphasis on diagnosis, referral, preparation, pre- and postoperative care.

SPRING MEETINGS

Medical Alumni Committee of Children's Hospital, San Francisco, March 17, 1956.* Morning: Dermatology. Afternoon: Nutritional problems peculiar to modern pediatrics.

Medical Alumni Committee of Children's Hospital, San Francisco, April 14, 1956.* Behavior Problems and Childhood Psychiatry.

California Medical Association Annual Meeting, Ambassador Hotel, Los Angeles, April 29-May 3, 1956.
Contact: John Hunton, Executive Secretary, 450 Sutter St., San Francisco 8, or Ed Clancy, Director of Public Relations, 417 S. Hill St., Los Angeles 13.

American College of Physicians 37th Annual Session, Los Angeles, April 16-20, 1956.
Contact: George C. Griffith, M.D., General Chairman, Box 25, 1200 N. State St., Los Angeles 33.

**For registration or information, contact:* Gertrude Jones, M.D., Children's Hospital, San Francisco.

†*For information contact:* Louis E. Jones, M.D., secretary-treasurer, California State Board of Medical Examiners, Room 536, 1020 N Street, Sacramento. (Note: Applications must be on file at least two weeks before examination dates.)

THE PHYSICIAN'S *Bookshelf*

PERINATAL MORTALITY IN NEW YORK CITY—Responsible Factors. Schuyler G. Kohl, M.S., M.D., Dr. P.H., Commonwealth Fund, Harvard University Press, Cambridge, Mass., 1955. 112 pages, $2.50.

This small book represents a painstaking analysis of 955 stillbirths and neonatal deaths occurring in New York City in 1950. It is published under the auspices of the New York Academy of Medicine and represents primarily the work of its subcommittee on Neonatal Mortality. The statistical analyses have been carried out in the Columbia School of Public Health. The purpose of the study is not to duplicate information available from vital statistics records, but is "to concentrate on preventability, responsibility, cause of death, and related clinical data." This the book does well. Attention is given to such factors as the following in their relation to perinatal deaths: type of obstetrical care, age and parity of the mother, obstetric complications, analgesia and anesthesia, method of delivery, and time of death. A significant chapter is devoted to causes of death and their agreement on pathologic, clinical, and recorded death certificate bases. The final chapter summarizes the findings of the study, set forth in twenty-four points; in addition the author offers a number of suggestions of value to those undertaking future investigations of a similar type. This book may be recommended to obstetricians, pediatricians, and public health workers concerned especially with the statistical approach to problems of perinatal mortality. Organizations concerned with fetal and neonatal deaths will find it a useful reference.

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BONE AND JOINT X-RAY DIAGNOSIS. Max Ritvo, M.D., Assistant Clinical Professor of Radiology, Harvard Medical School. Lea & Febiger, Philadelphia, 1955. 752 pages, 568 illustrations, $20.00.

This comprehensive textbook is divided into ten chapters of widely varying lengths. The opening chapter deals with general considerations of radiology and osteology. There are chapters on hereditary and congenital disorders of the skeleton, traumatic lesions, infections, endocrine and metabolic disturbances, and bone changes due to chemical and physical agents. The next chapter deals with diseases of the joints and periarticular tissues. The last three chapters deal with bone tumors, diseases of the spinal canal and soft tissue roentgenography of various portions of the body.

In general, there is adequate discussion of the clinical, pathological and roentgenological manifestations of bone disorders; there are occasional references to treatment and there are good sections on differential diagnosis. The references to the literature are rather sparse, and the number of illustrations somewhat modest for a seven hundred-fifty page book (the illustrations number 398). However, the latter are in positive form and are of very good quality. The book, therefore, would appear to be primarily for students, and one to be used in conjunction with a good roentgen teaching file. Most of the material comes from the Boston City Hospital at which the author is Director of the Department of Radiology.

CHRISTOPHER'S MINOR SURGERY—7th ed. Alton Ochsner, M.D., F.A.C.S., William Henderson Professor of Surgery and Chairman of the Department of Surgery, Tulane University School of Medicine; and Michael E. DeBakey, M.D., F.A.C.S., Professor of Surgery and Chairman of the Department of Surgery, Baylor University College of Medicine, W. B. Saunders Company, Philadelphia, 1955. 547 pages, 251 illustrations, $9.00.

Christopher's *Minor Surgery* has been for many years one of the outstanding texts on minor surgery. It has not been revised for seven years, however, and the present revision, which constitutes the seventh edition, has been admirably accomplished by Ochsner and DeBakey. These authors have changed the format of the book entirely, and since the many contributors to this new volume were all at one time or another closely associated with Ochsner and DeBakey the book maintains a uniformity of presentation despite its multiple authorship. It is clearly and concisely written. The subject material covered is well arranged and the illustrations are reasonably adequate. Condensation from previous volumes has been accomplished by avoiding the innumerable references and quotations from countless authors which heavily burdened the previous editions. One good method of treatment is given for each condition and the reader is no longer left to choose from a variety of different methods of managing minor surgical lesions.

The term "minor surgery" has never been adequately or clearly defined, and the book suffers in scope since it is limited to a discussion of conditions in which there is little or no threat to life. Many readers will be disappointed in the failure to cover many subjects which they would hope to have discussed to make the book more useful in everyday practice of surgery. Insufficient detail is also given in many of the discussions to permit pertinent judgments in the course of treatment of many conditions discussed. On the whole, however, the present edition is superior to any of the earlier ones, and it is a good book on "Minor Surgery."

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HYPERTENSION—Humoral and Neurogenic Factors—Ciba Foundation Symposium. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Margaret P. Cameron, M.A., A.B.I.S. Little, Brown and Company, Boston, 1954. 294 pages, 73 illustrations, $6.75.

This is the record of some twenty papers and the discussions evoked by them at a meeting in 1953 of 33 students of hypertension gathered in London from North and South America, England, Spain, Sweden, etc. For the most part, the material is more academic than practical (neural and humoral control of blood vessels, renin, 5-hydroxytryptamine, catechol amines). A number of chapters, such as those on hypertensive disease without hypertension, role of the kidney in hypertension, the relationships between water, electrolytes, the adrenals and arterial pressure, and ganglion blocking agents, should be of wider interest. The provocative discussions are valuable. The work contains adequate illustrations and indexes; it is well published and represents an excellent review of the current state of advances toward the understanding of arterial hypertension.

SURVEY OF CLINICAL PEDIATRICS—Second Edition. Lawrence B. Slobody, M.D., Professor of Pediatrics, New York Medical College, The Blakiston Division, McGraw-Hill Book Company, Inc., New York, 1955. 502 pages, $9.50.

The title of the book describes it. It is a survey of Clinical Pediatrics. This is a good survey. Knowledge and facts concerning growth, development and the pathological conditions seen in children are presented in outline form with brevity of words, but each sentence is full of knowledge and known facts. Each subject is captioned in large bold type. The numerous tables stand out sharply in the text. Each condition described outlines the essential features of the disease or pathological condition, the germane laboratory procedures are listed and essential treatment described, with dosage and procedures listed in detail. At the end of each chapter there is a list of "review questions" which challenges the reader as to his grasp of the chapter. The index covers 51 pages. There are three pages of suggested collateral and reference reading. The preface states, "The survey is not intended to replace the excellent text books now available. It is designed to help the student and practitioner focus on the highlights and relationships of pediatrics." The reviewer feels this has been done. Some information is so new that even the Salk Vaccine is mentioned. The book could even serve the well established pediatrician as a quick and easy review of conditions and diseases affecting the growing child.

* * *

CIBA COLLECTION OF MEDICAL ILLUSTRATIONS —Volume 2—Reproductive System. Prepared by Frank H. Netter, M.D., and Edited by Ernst Oppenheimer, M.D. Commissioned and published by CIBA Pharmaceutical Products, Inc., Summit, New Jersey, 1954. 286 pages, $13.00.

In his foreword to this atlas, John Rock aptly describes it as an exceedingly compact and inclusive postgraduate course in both male and female reproductive anatomy, physiology and pathology. To those familiar with the first volume of Ciba Medical Illustrations (on the nervous system), suffice it to say that the second is a similar but more pretentious effort, comprising 233 plates with accompanying descriptive text printed in very small type. Many of Frank Netter's illustrations will be familiar to physicians who have had time to look at the various issues of "Ciba Clinical Symposia," as well as special folders and brochures distributed by this pharmaceutical concern over the last dozen years, because 144 of the plates were published previously in these media. In addition to a preface describing briefly some of the problems of putting such an atlas together, Ernst Oppenheimer has provided an impressive sketch which tells something of the enormous amount of study Doctor Netter devotes to the subject depicted in each of his paintings. Finally, the artist himself has provided a short historical resumé of the work of artist-illustrators in medicine, as well as interesting comments about his collaborators who provided the textual material.

The volume is divided conveniently into fourteen sections, the first five of which deal with normal anatomy and diseases of the male genital tract. Similar coverage for the female organs is provided in the next six sections, and the remaining three portions are devoted respectively to pregnancy and its disorders, the mammary gland, and intersexes. Netter's paintings of gross anatomical and pathological material are superb, but many of the reproductions of photomicrographs seem oversimplified and perhaps in many instances the actual photographs might have served better.

The book is recommended to those who need a fairly rapid and pleasantly colorful review of disorders of the reproductive systems. Teachers will find that many of the plates, or portions of them, can be reproduced nicely on color film and used as transparencies for lantern slides, a practice which one presumes to be in keeping with the avowed purpose of the authors.

PSYCHOPHYSIOLOGIC MEDICINE. Eugene Ziskind, M.D., Clinical Professor of Psychiatry, University of Southern California School of Medicine. Lea & Febiger, Philadelphia, 1954. 370 pages, $7.00.

In recent years there have been many volumes popularizing the field of psychosomatic medicine. This one, by a practicing psychiatrist who has been working for many years as a psychiatrist in a general hospital and clinic, may prove to be a real help to physicians interested in the psychological aspects of medicine. The author divides his presentations into three sections—the first concerned with a generally comprehensive description of the problems of psychophysiologic medicine and related psychopathological aspects of such problems; the second with techniques and methodology, including diagnosis and psychotherapy; and the third, entitled "Toward Broader Visions," describes child-parent relationships, the social factors of psychopathology, psychiatric emergencies in medical practice, and a description of the various schools of psychiatric thought, including those of Freud, Adler, Jung, Rank, the cultural psychoanalysts, and Meyer, the psychobiologist. The presentation is simple and lucid. Clinical examples are sprinkled throughout the text in order to emphasize specific points and are quite appropriately chosen, and no attempt is made to minimize the difficulties in inherent psychotherapeutic procedures. The author's basic philosophy is stated as follows: "I stress what is common to most psychiatric thinking, namely, that the needs of human beings, when frustrated, result in personality conflicts; that the process of social adaptation is universal, but often unsuccessful; that early life conflicts endure; that persistent conflicts may crystallize into character patterns; that unresolved conflicts may be transmitted into symptoms of organic illness through the autonomic nervous system. These do not explain all psychopathology yet they suffice as a set of working premises."

All in all, this book may be highly recommended to practicing physicians and students.

* * *

SYNOPSIS OF MEDICINE—Tenth Edition. Sir Henry Letherby Tidy, K.B.E., M.A., M.D., B.Ch.(Oxon), F.R.C.P. (Lond.), Extra Physician to Her Majesty the Queen. The Williams and Wilkins Company, Baltimore, 1954. 1253 pages, $7.50.

It is obvious that this short synopsis of medicine has filled a need because of its many editions since 1920, of which the present one is the tenth. The material in general is well organized and easily available by an excellent index. The basic principles are clearly stated but the discussion is, to the reviewer's mind, wholly inadequate. This may, of course, be the result of the limited space available because of the nature of the book. Nevertheless, one often finds inadequate discussions, as for example, the fact that Coronary Heart Disease is covered in five and one-half short pages and Essential Hypertension in two pages. Treatment is particularly inadequately covered. Newer methods of study have been incorporated in the new edition, although one still finds discussions, as in the section on Coronary Heart Disease mentioned above, with respect to Lead IV rather than discussing the precordial leads.

The section on Infectious Diseases is among the best although again treatment is given inadequate attention. The space devoted to Infectious Diseases is much more adequate than for other aspects of medicine, which may account for the excellence of this particular section. For example, the discussion on Lobar Pneumonia covers thirteen pages.

For those who like their medicine in capsule form and who are able to gain what they want from terse statements, this book will be useful.

THE PHYSIOLOGICAL BASIS OF MEDICAL PRACTICE—A Text in Applied Physiology. Charles Herbert Best, C.B.E., M.A., M.D., D.Sc.(Lond.), F.R.S., F.R.C.P. (Canada), Professor and Head of Department of Physiology, Director of the Bantin-Best Department of Medical Research, University of Toronto; and Norman Burke Taylor, V.D., M.D., F.R.S.(Canada), F.R.C.S.(Edin.), F.R.C.P. (Canada), M.R.C.S.(Eng.), L.R.C.P.(Lond.), Professor of History of Medicine and Medical Literature, University of Western Ontario. The Williams and Wilkins Company, Baltimore, 1955. 1357 pages, $12.00.

This time-tested and standard text on applied physiology is again recommended as a link between basic medical science and the practice of medicine. It contains a great mass of information readily available for the student of clinical medicine, the intern and the practitioner with a scientific bent.

Despite the fact that the present edition has had considerable change, the reviewer feels that the revision is still patchy and not extensive enough. The section on the endocrine glands may be cited as an example of too little alteration in the text and particularly in the illustrations. One sees the same pictures, including the same old outworn extreme abnormalities, often badly reproduced, that were present in the first edition of 1937.

In view of the value and the stature of this book we hope that the next edition will show even more improvement.

* * *

MYOCARDIAL INFARCTION—Its Clinical Manifestations and Treatment with Anticoagulants—A Study of 1,031 Cases. Irving S. Wright, M.D., Charles D. Marple, M.D., and Dorothy Fahs Beck, Ph.D., Report of the Committee on Anticoagulants, American Heart Association. Published for the American Heart Association by Grune & Stratton, New York, 1954. 656 pages, $8.50.

This massive monograph presents a final report which demonstrates again that, during a cooperative study under the direction of the Committee on Anticoagulants, certain patients with myocardial infarction who received anticoagulants had a lower mortality rate than others who were not so treated. Extensive documentation gives evidence which convinces the authors that this beneficial effect may be attributed to the use of anticoagulants rather than to other factors in the management or selection of patients. Inasmuch as such factors bear on prognosis after myocardial infarction, the validity of the authors' conclusions depends upon their demonstration of random selection of patients during this clinical trial. Unusually detailed analyses are presented to establish this point. In the end, the reader must judge for himself whether the analyses and correction factors for certain differences between control and treated groups are valid. The committee is to be congratulated for completing its monumental task.

* * *

MANUAL OF HAND INJURIES. H. Minor Nichols, M.D., Clinical Instructor in Surgery, University of Oregon Medical School. The Year Book Publishers, Inc., 200 East Illinois, Chicago, 1955. 352 pages, $9.50.

This manual fulfills the need of a less ponderous text encompassing most of the commonplace injuries of the hand. Thus, it has value to general practitioners, surgeons, and students. The book has been carefully done and covers most salient points in the primary care of injury. It is garnished by a chapter on anatomy and one on general technique, including preoperative and postoperative care. At the end of the book, a chapter on secondary tendon repair and another on elective and reconstructive procedures serve as an introduction to the more complicated and extensive problems in this field.

Dr. Nichols, known personally by the reviewer, has had a wealth of experience and takes a practical approach to the problem of rehabilitating the injured hand.

RECENT ADVANCES IN MEDICINE AND SURGERY—Vols. I and II—(19-30 April 1954). Based on Professional Medical Experiences in Japan and Korea 1950-1953. Army Medical Service Graduate School, Walter Reed Army Medical Center, Washington, D. C., Medical Science Publication No. 4. Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C. $1.75.

These two volumes represent complete notes of a course entitled "Recent Advances in Medicine and Surgery," conducted by the Army Medical Service School, 19 to 30 April 1954. The faculty was selected from surgeons who actually performed large numbers of operations under battlefield conditions, individuals concerned with public health and preventive medicine responsibilities, and internists concerned with large numbers of cases of hepatitis, malaria and other diseases.

The authors emphasized the difficulties they had and the mistakes they made as they gained experience in evacuation, management of early wounds and personnel problems. Also they were confronted with a new disease, epidemic hemorrhagic fever, in enormous numbers of cases, without having had any practical experience in its management. A novel approach to the solving of this latter problem, as well as many other medical field problems, was enthusiastically and effectively managed by moving experts in their respective fields from Walter Reed Army Medical Center, plus groups of civilian medical specialists, to the field treatment centers in Korea.

These two volumes would be of value to any practicing physician because they are authoritative and cover many of the problems doctors would be confronted with in case of a national disaster.

* * *

A TEXTBOOK OF NEUROLOGY. H. Houston Merritt, M.D., Professor of Neurology, Columbia University. Lea & Febiger, Philadelphia, 1955. 746 pages, 181 illustrations and 128 tables, $12.50.

This is a new textbook of neurology by an author who belongs to the relatively younger generation of specialists in this field. In order to justify its existence it must have virtues not possessed by the fairly numerous texts which have undergone the refinement of passing through a number of editions. These, in the opinion of the reviewer, are present. Primarily, the whole approach to the subject is modern, and does not show the piecemeal revision that is inherent in an older book periodically brought up to date. The various diseases of the nervous system are arranged as much as possible according to etiology. This is an advantage to the student, and coupled with the excellent index provided is in no way disadvantageous to the physician using the book as a reference work. The subject is treated exclusively from the clinical standpoint, anatomical data and the technique of examination being introduced only where necessary to clarify a particular point. In all, this is a useful addition to the list of neurological texts, and can be recommended to student and physician alike.

* * *

MODERN TREATMENT YEARBOOK 1955—A Yearbook of Diagnosis and Treatment for the General Practitioner. Edited by Sir Cecil Wakeley, Bt., K.B.E., C.B., LL.D., M.Ch., D.Sc., F.R.C.S., F.R.S.E., F.R.S.A., F.A.C.S., F.R.A.C.S., Fellow of King's College, London; Senior Surgeon, King's College Hospital. Published for the Medical Press by Bailliere, Tindall & Cox, Ltd., Distributed in U.S.A. by Williams and Wilkins Company, Baltimore, 1955. 344 pages, $6.00.

This 337 page book is composed of 36 monographs on modern treatment by British authors. It is the 21st volume in the yearbook series edited by Sir Cecil Wakeley.

In general, it is well done and can be recommended to the American reader who would like to explore a little beyond the "beaten path."

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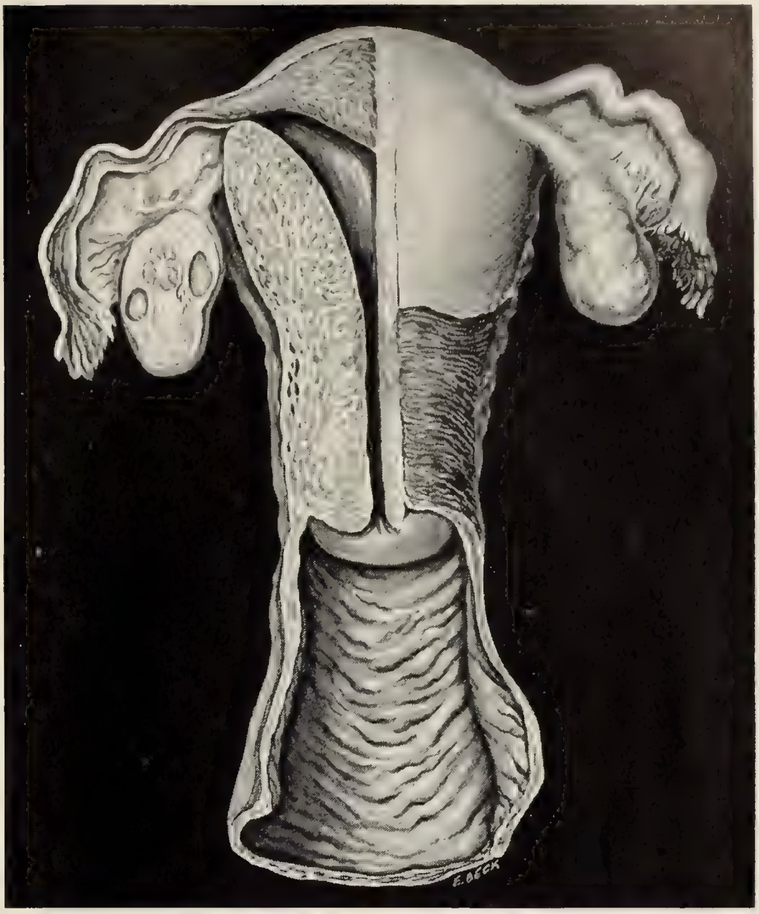

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*Sturnick, M. I., and Gargill, S. L.: New England J. Med. *247:*829 (Nov. 27) 1952.

SEARLE

An Expert's Tips on How to Hire Your "Girl Friday"

By **PORTIA M. FREDERICK**[*]

The key person in your office public relations is your medical office assistant. Next to the actual practice of medicine, she is the main factor in maintaining a pleasant atmosphere in a smoothly managed office.

For this reason, choose the girl with extreme care. Remember that your first impression will often be your patient's first impression. The adage "looks are not everything" may be true but is of little consequence when hiring your new assistant. Look for a neat, attractive girl who is exceptionally fresh and clean, and who possesses friendliness, graciousness and a sincere ability to get along with people. A girl who is genuinely interested in people and who has a desire to be of service to them will not stray too far from your standards of a good public relations representative.

Use a pattern in your interviewing. Before you interview applicants, make a list of the necessary qualifications: age range, marital status, previous experience, etc. Have these questions well thought out and planned. It is not necessary to have a formal questionnaire and to give the interviewee an impression of mass production.

Consider also the applicant. Because the medical world is somewhat closed to outside considerations, the physician forgets that a medical assistant is an individual who maintains her own home and normal daily needs. Security is limited in her profession, but the need for a job is closely associated with the desire to obtain one for which she is best suited and which gives her pleasure and satisfaction.

A "job analysis" can be used to great advantage in the interview. This "job analysis" is a brief outline of the duties performed in your office. In other words, it is an outline of an average day's duties, listing the jobs to be done and the abilities necessary for completing them. Frequently, a new assistant finds that there has been gross misrepresentation in regard to the duties expected of her. These matters should be understood before actual employment, for it is obviously advantageous to employer and employee. Employee turn-over, to a large extent, could be eliminated if this plan were followed and the physician were particular and consistent.

Discuss salary and hours. These subjects are often omitted from an interview because they are abused and lead to a majority of misunderstandings. An efficient, capable assistant more than earns her salary; therefore, she is certainly entitled to a living wage. The actual amount appearing on a pay check is far from the salary originally quoted.

(Continued on Page 76)

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[*] Instructor at the Long Beach City College Technical Institute.

Presented before the Second Annual Public Relations and Office Management Convention of the Student A.M.A., April 24, 1955, Los Angeles. Sponsored by the California Medical Association.

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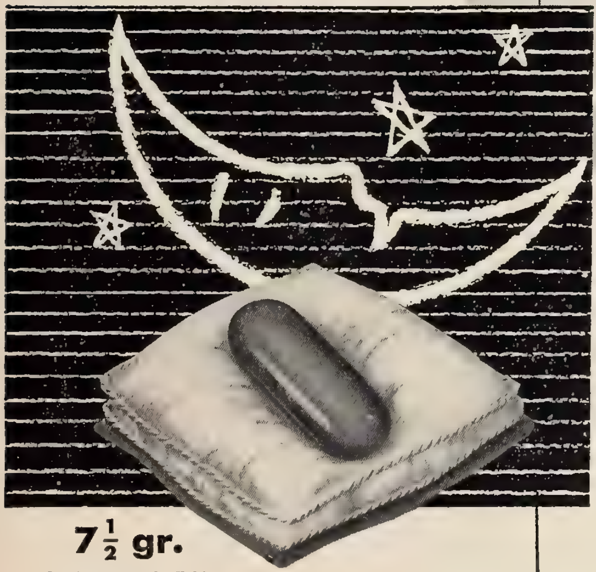

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Physician Doubts Existence of "Ulcer Personality"

Doubt as to "the nature or even the existence of a specific ulcer personality" was expressed recently by a Cleveland physician.

It has become common in the last few years for doctors and the public to refer to certain persons as being of the "ulcer type." Articles and even a book have been written on the subject.

Yet investigators cannot agree on what goes to make up the "peptic ulcer personality," Dr. Harold P. Roth said in a recent issue of *Archives of Internal Medicine*, published by the American Medical Association.

He found that a number of different personalities were described as typical in various studies on the topic. "There was no whole personality or feature of personality that was agreed upon by as many as a third of the investigators," he said.

Personality traits most frequently mentioned were drive, conscientiousness, and anxiety. "Although other traits were described, the statements about most of them were contradictory," he said.

Some authors suggested that ulcer patients had a specific type of conflict. But they did not always agree on the nature of the conflict nor whether the conflict was associated with a specific personality type.

(Continued on Page 74)

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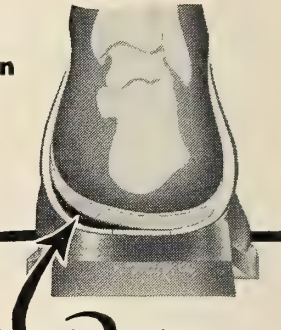

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Physician Doubts Existence of "Ulcer Personality"

(Continued from Page 70)

The conflict most frequently reported was between feelings of passivity and feelings of activity and independence. Because this same conflict is seen in persons without ulcers, "we must know how often this conflict can be found in the general population before we can decide how significant is the fact that it is found in ulcer patients," Dr. Roth said.

"We cannot say whether the fact that a number of investigators described the same personality features is significant, for this may be due to a defect in their technique," he said.

In half of the studies no method of study was outlined. Some were based on interviews, psychoanalysis, and psychological testing.

No distinction was made between patients with gastric ulcer and those with duodenal ulcer nor between male and female patients in many of the studies. Yet investigators who studied these groups separately found there were differences in personality.

"Conclusions about the ulcer personality in the

(Continued on Page 78)

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An Expert's Tips on How to Hire Your "Girl Friday"

(Continued from Page 66)

The increased amount of deductions today leave a pay check that is far from the employee's worth.

A physician often forgets that the patients seen after the normal closing hours may be money in his pocket, but it only means extra work and a long hard day to the assistant because she receives no financial gain from this overtime. A "thanks" is appreciated but it soon loses its value and the story becomes trite.

If yours is a more than "one-girl office," have the girls work out a plan and stagger the hours. Days that are light can be short-staffed without any inconvenience. By taking full advantage of your exchange service even a "one-girl office" need not suffer. Patients are easily trained. They appreciate a doctor who is considerate of his assistant.

After the interview, don't keep the girl in suspense by saying, "I'll call you in a few days." Oftentimes a girl will wait for a call from a physician for several days only to call back—after she has mustered the courage—and find out . . . "the job was filled last week." Meanwhile she has passed up other opportunities for employment because she was waiting for "that call." Try to be specific, to be honest and explain to her that there are other applicants.

* * *

When a new girl starts on the job, be sure she understands the duties expected of her. Whether she is a secretary, assistant or R.N., give her time to get adjusted to the new office. Even the best-trained girl in the profession finds it necessary to learn your particular needs and habits. Remember that the "job analysis" is the key to rapid adjustment. Teach her the duties with a system by using a plan of orientation.

It is suggested that a new assistant make a set of 3x5 cards listing the procedure and the materials needed for particular tests or examinations that require specific set-ups. These cards can be kept in the files with the job analysis for immediate reference by a relief girl, later. Unplanned absences from an office cause enough inconvenience for the physician, but this can be minimized by a little forethought and the use of these reference cards.

Delegation of work is often poorly handled and results in an overstaffed office. In delegating work to your assistants, never sacrifice your personal public relations with your patients. A competent

(Continued on Page 80)

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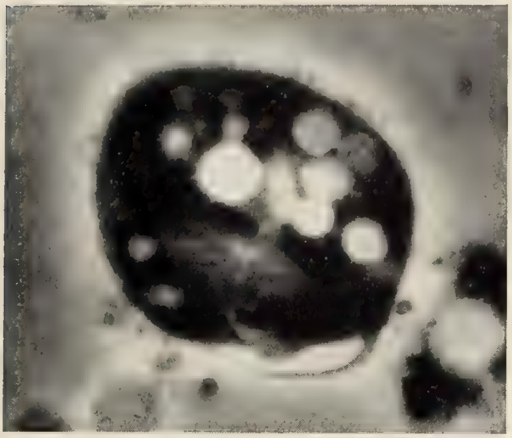
Each fluid ounce of TUSSAR contains: Dihydrocodeinone Bitartrate, 1/6 gr. (Warning—May be habit forming); Potassium Guaiacol Sulfonate, N.F., 8 gr.; Sodium Citrate, U.S.P., 13.2 gr.; Citric Acid, U.S.P., 2 gr.; Prophenpyridamine Maleate, 1 gr. (10 mg./teasp., 5 cc. medicinal); Chloroform, U.S.P., 2 minims; Methylparaben, U.S.P., 0.1%. Flavor, sweetening, aroma, vehicle. If desired, either ammonium chloride, potassium iodide, or ephedrine can be added to Tussar. Supplied in 16 oz. and 1 gal. bottles.

DAVIS TECHNIC USING VAGISEC* JELLY AND LIQUID EXPOSES AND EXPLODES TRICHOMONADS HIDDEN AWAY IN RUGAE



Phase-contrast microscope shows a trichomonad in a mucinous vaginal smear.

MANY trichomonacides failed in years past largely because they reached only the parasites swimming freely in the vaginal canal—not those hiding under epithelial cells deep among the vaginal rugae. In fact, some agents actually coagulated the albuminous material lining the surface and protected the trichomonads![1]

Success at last. Today, however, you can overcome this problem because VAGISEC jelly and liquid quickly penetrate to trichomonads' hideaways. You can now treat vaginal trichomoniasis successfully, using the Davis technic. Carl Henry Davis, M.D., eminent gynecologist and author, and C. G. Grand, research physiologist, introduced VAGISEC liquid as "Carlendacide" and had it tested by over 100 well-known obstetricians and gynecologists. Dr. Davis states, ". . . over 90% of apparent cures have been obtained. . . ."[2]

Overpowering action. Three surface-acting chemicals in VAGISEC liquid, acting synergistically, not only reach trichomonads but explode them![3] A chelating agent complexes and removes the calcium of the calcium proteinate. A wetting agent removes lipid materials. A detergent denatures the protein. The parasites imbibe water, swell and explode.

The Davis technic.† Dr. Davis recommends a combination of office treatments and home treatments, using both VAGISEC jelly and liquid in home treatments. "A few women have infected cervical, vestibular or urethral glands and require other types of treatment. . . ."[2] It is well to remember the role of the male as carrier of the organism and prescribe protection against re-infection from the husband.[2]

Office treatment. Expose vagina with speculum. Wipe walls dry with cotton sponges and wash thoroughly for about three minutes with a 1:250 dilution of VAGISEC liquid. Remove excess fluid with cotton sponges. Dr. Davis recommends six office treatments, three the first week, two the second, and one the third.

Home treatment. Patient inserts VAGISEC jelly each night and douches with VAGISEC liquid (2 teaspoonfuls in 2 quarts of warm water) each morning except on office treatment days, through two menstrual periods. Continued douching two or three times a week helps to prevent re-infection. Pregnant women should have office treatments only.

Summary. The unique synergistic action of three agents comprising VAGISEC liquid reaches and explodes hidden as well as surface trichomonads. This therapy has a high rate of success and results in fewer flare-ups. VAGISEC jelly and liquid are non-toxic and non-irritating, and leave no messy discharge or stain.

*VAGISEC is the trade-mark of Julius Schmid, Inc. †Pat. App. for

JULIUS SCHMID, INC.
gynecological division

423 West 55th Street   New York 19, N. Y.

Active ingredients: Polyoxyethylene nonyl phenol, Sodium ethylene diamine tetra-acetate, Sodium dioctyl sulfosuccinate. In addition, VAGISEC jelly contains Boric acid, Alcohol 5% by weight.

1. Davis, C. H.: Am. Jour. Obst. & Gynec. *68*:559 (Aug.) 1954.
2. Davis, C. H.: West. J. Surg. *63*:53 (Feb.) 1955.
3. Davis, C. H.: J.A.M.A. *157*:126 (Jan. 8) 1955.

Physician Doubts Existence of "Ulcer Personality"

(Continued from Page 74)

general population have been drawn from studies of samples that were not representative," Dr. Roth said.

"Usually the author did not report how often he found a given characteristic, such as ambition, in his patients. . . . Generally he reported his conclusions, not his data," he said.

"An entirely satisfactory" method for evaluating personality has not been developed, nor has a method for comparing ulcer patients with ulcer-free persons, Dr. Roth said.

An Unusual Heart Arrest Case

After a probable record period of almost two hours in which his heart was useless and only emergency measures kept him alive, an 11-year-old boy has returned to fully normal life.

The boy's heart for one hour and 50 minutes was in ventricular fibrillation—a state in which it stops pumping and just twitches uselessly, according to a report made by a New Hampshire physician.

All this time he was kept alive by hand massage of the exposed heart, electric shock, oxygen administration and other emergency measures. This also

(Continued on Page 102)

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Intensive full time instruction in those subjects which are of particular interest to the physician in general practice, consisting of clinics, lectures and demonstrations in the following departments—medicine, pediatrics, cardiology, arthritis, chest diseases, gastroenterology, diabetes, allergy, dermatology, neurology, minor surgery, clinical gynecology, proctology, peripheral vascular diseases, fractures, urology, otolaryngology, pathology, radiology. The class is expected to attend departmental and general conferences.

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*Riese, J. A.: Am. J. Digest. Dis. *21*:81, 1954.

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An Expert's Tips on How to Hire Your "Girl Friday"

(Continued from Page 76)

girl can relieve you of many duties, on the other hand, do not delegate personal contact that should be handled by the doctor alone. These assigned duties should not be so specialized per girl that she cannot relieve her fellow worker in case of emergency. There should be a moderate amount of overlapping in a smoothly operated office. Assistants who are well paid and given fair working conditions are capable of doing superior work in comparison to an excess of assistants who are not capable and are of a "cheaper" quality. There are no "cut-rate" employees in the profession, unless, of course, public relations are to be sacrificed. Eventually, this procedure becomes an extreme liability.

Physicians, in starting their practice, have been well-trained in the fine art of medicine but the small details of business and office procedure are sometimes neglected. In order to save time and worry later, the following details should be considered now:

Choose your office space carefully. A few dollars more for rent may pay dividends in your turnover of patients. If time is taken in an examination room for dressing or recovery, space may become expensive. A well-run office proceeds with the order of a well-dispatched train yard.

Watch the office for excess noise. Test your consultation room to determine whether or not your voice carries outside the privacy of its walls. In the beginning, when less supplies are needed and records are few, storage space may not seem too important, but in later years the much-needed space is often at a premium. If you are planning laboratory procedures in your office, give them correct space, necessary ventilation and light. Since laboratory tests are essential in many offices and they are more than a self-supporting procedure, allow the space that is necessary.

The choice of equipment depends upon the individual practice and it is difficult to make many concrete suggestions. However, valuable time can be lost in waiting for inexpensive equipment or instruments to be sterilized or moved from room to room. This loss of time can be eliminated by purchasing more equipment and by the proper arrangement of appointments. In other words, it would be unwise to book too-expensive examinations that require the same room and equipment because time will be lost in cleaning the room and preparing the set-up. Of course, a patient is *never* taken into a room in which there is any evidence of a previous patient.

Your medical and financial records should be chosen with great forethought of future growth. There are many excellent medical record com-

(Continued on Page 83)

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It relaxes and calms the patient. Tranquil sleep comes within 15 to 30 minutes—should last all night.

Placidyl does not force patients into sleep; rather, it *induces* them to sleep naturally.

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An Expert's Tips on How to Hire Your "Girl Friday"

(Continued from Page 80)

panies from which a physician has a wide selection. It is advisable for him to write various companies, briefly explain his needs, and ask for samples.

Many physicians now feel it is best to have the patient's medical history separate from his financial record. The advantages are obvious. Insist that your secretary keep the records up-to-date. Each day's histories should be checked and entries completed before filing. The bookkeeping should be posted daily and the collections should be balanced and proved at the end of each day. Under no circumstances should daily posting fall behind because many patients want to know their current balance.

Poorly organized collection methods are the reason for many a lost account. As an aid to collections, always write a receipt for all cash received because it aids in proving the cash collected and in this manner patients are encouraged to keep their receipts for income tax purposes. You will find the "aging" of your accounts will be a great aid in forming a pattern in collections.

Whether patients are to be seen only by appointment or not, will be determined by your type of practice and your habits. Both methods have advantages and disadvantages which only you can decide. If the appointments are preferred, then respect them and cooperate with your assistant. It is very difficult for a girl to face a reception room full of patients when the doctor is unnecessarily behind his appointed time.

Tell a new assistant the time you require for specific types of office calls and help her to learn your requirements for time. Lack of respect for the patient's time, double-booking and constant lateness will only be an expense in the long run. A good assistant should give considerable thought and planning when making appointments. Extra time and house calls should be made only after the doctor has been consulted.

There are many excellent books on the market and in the libraries which will help a new assistant in her secretarial duties. She should be well-versed on business etiquette and medical ethics. Knowledge of medical laws and liability are a part of her requirements as well as the ability to understand health and medical insurance policies.

She should be encouraged to read each issue of *Medical Economics* and all articles which are applicable to the management of the office. It is a worthwhile investment to pay your assistant to attend evening classes which will improve her ability to be a better medical office assistant.

Many physicians would be surprised and proud to know of the loyalty displayed by their assistants. It is not too much for a physician to request, and demand, competent help in his office, but in return he should give equal consideration.

there are

4 Reasons Why MORE PHYSICIANS NOW RELY ON HYPERLOID

An increasing number of physicians are prescribing HYPERLOID (Persón & Covey's standardized powdered whole root rauwolfia serpentina) for their patients. The reasons for their choice are:

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REFERENCE: 1. Kirwin, T. J., Lowsley, O. S., and Menning, J.: Am. J. Surg. **62**:330-335, December, 1943.

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American Medical Association Group Describes Danger of Disability Proposal

The Board of Trustees of the American Medical Association warns physicians—and the public—of the potential impact of proposed changes in the Social Security Act.

The proposal was passed by the House of Representatives, 372-31, on July 18. A special message from the Board, appearing as an editorial in a recent issue of the *Journal of the American Medical Association*, warned that the distance between "our present medical freedom and complete government regimentation has narrowed considerably. The remaining gap will be closed completely unless physicians throughout the nation take constructive action. . . ."

The House proposal, which amends the Social Security Act, contains one particularly vital item: an amendment to provide cash benefits to certain permanently and totally disabled Social Security beneficiaries.

"In effect, this proposal would establish, for the first time in this country a system of national compulsory disability 'insurance' under Title II of the Social Security Act," the editorial said. It continued in part:

"Because of the piecemeal approach to the socialization of medicine, of which this proposal is the keystone, the medical profession and the nation as a whole have not been as alert to the danger as they were during the 1949-50 campaign against the Truman-sponsored compulsory health insurance bills. The present danger, in fact, is greater.

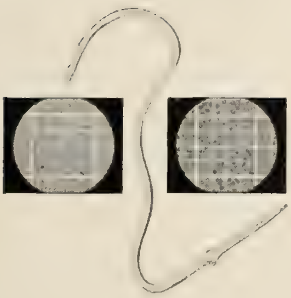
"If this bill is adopted it can be confidently predicted that the cash disability benefits will gradually be extended to the temporarily disabled and that eventually the federal government will initiate a system of compulsory health insurance as a necessary counterpart to the cash benefits program. This combination of national compulsory health insurance and national disability benefits has been true in almost every other nation where government disability benefits exist. The combination becomes inevitable because the government must control the treatment of the disabled if it is to maintain any control over the extent of the cash benefits."

In fact, the present bill requires that cash benefits be contingent upon participation by the disabled in rehabilitation programs, the editorial said. The profession, therefore, should become thoroughly aware of the true nature of the bill and its effect on health insurance and medical practice and "take active steps to develop a public climate that will permit the members of the Senate to vote against it."

* * *

Commenting on the proposed amendments to the Social Security Bill, Dr. George F. Lull, Secretary-General Manager of the A.M.A., said:

(Continued on Page 94)



IN CHRONIC LOW-GRADE INFECTIONS—"Cobalt appears to be a valuable drug in the treatment of anemias secondary to chronic diseases."

—Weinsaft, P. P., and Bernstein, L. H. T.: Amer. J. Med. Sc., Vol. 229, (Sept.) 1955.

"In all patients (chronic suppurative infection) a reticulocytosis was observed within 6 days. This was followed by increases in red-cell counts, in hemoglobin values, in blood volume and in total circulating hemoglobin."

—Robinson, J. C., et al.: New England J. M. *240*:749 (May) 1949.

Safe Medication

IN INFANCY—"There were no toxic effects in any case."

—Coles, B. L.: Archives of Disease in Childhood, *30*:150 (April) 1955.

"None of them [infants] showed harmful effects despite the large doses."

—Quilligan, J. J., Jr.: Texas St. J. Med. *50*:294 (May) 1954.

IN PREGNANCY—"No toxic manifestations associated with its use have been observed."

—Holly, R. G.: Obstet. & Gynecol. *5*:562 (April) 1955.

IN CHRONIC LOW-GRADE INFECTIONS—"With 60 mg. (cobalt chloride) a day by mouth after meals neither ourselves nor our patients experienced untoward symptoms."

—Robinson, J. C., et al.: New England J. M. *240*:749 (May) 1949.

"In our hands, cobalt appeared to be a useful and valuable drug, well tolerated and devoid of undue toxicity."

—Weinsaft, P. P., and Bernstein, L. H. T.: Amer. J. Med. Sc., Vol. 229, (Sept.) 1955.

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A friendly extrovert, Oscar's frankness and sincerity have won him scores of friends from his business and professional contacts, his activities as an amateur cook and his membership in the Italian Athletic Club. He owns his own home in Stockton, where he relaxes on weekends, building, cooking or taking home movies of his wife, Josephine and his children, Patricia and Michael. An independent man who says he wouldn't work for any company unless he had the utmost confidence in it, Oscar likes his work with Boyle & Company and has made himself one of the best informed men in his field.

Born, brought up and educated in Stockton, where he owned and operated his own drug store for five years, Oscar is thoroughly conversant with the ethical relationship between pharmacy and medicine and you will find that he understands prescription and pharmaceutical problems from your point of view.

Oscar's experience, attitude and background are typical of our Boyle & Company V.I.P.'s, so when Oscar . . . or the Boyle representative in *your* area calls on you, you'll find him well informed, aware of your problems and considerate of your time. But his time will be yours, so do not hesitate to ask him about any of the products shown on the opposite page. He . . . and Boyle & Company . . . will welcome any comments you may have concerning them.

BOYLE

American Medical Association Group Describes Danger of Disability Proposal

(Continued from Page 88)

I sadly point to the extremely dangerous position in which American medicine finds itself after House passage of a bill which proposes sweeping revisions in the Social Security Act.

The bill, which would amend the law to provide cash benefits to certain beneficiaries who are permanently and totally disabled, was sent to the Senate by a roll call vote of 372 to 31 under a procedure barring amendments, limiting debate to 40 minutes, and requiring a two-thirds vote of approval.

Since the House action is so important and since the bill is expected to be acted on by the Senate after the first of the year, giving the profession enough time to campaign against it, two fine straightforward editorials taken from recent issues of the Chicago *Daily News* and the Chicago *Tribune* are printed below:

The Something for Nothing Boys

Revisions of the social security act, sponsored by the Democratic majority in Congress and passed by the House on Monday, represent a new low in the something-for-nothing game that the demagogues of the nation have been playing on the public since 1936.

Not the least distressing part of the exhibition was the part played by Illinois Republicans who know better and who usually can be depended upon to vote their convictions. Just one of them, Rep. Noah Mason, opposed the bill after denouncing it for placing the social security system on an even more unsound actuarial basis than now obtains. Most of the rest voted for it, apparently depending on Sen. Byrd and other conservatives in the Senate to keep it off the lawbooks.

Social security is called insurance. It is not. Insurance is based upon premiums which bear a direct relation to the benefits accrued. The premiums for old age and survivors insurance, the official name for social security, are collected in equal amounts from employer and employee when the alleged beneficiary is not self-employed. The tax has no relation to the benefits. The law was deliberately written to make higher paid employees pay most of the benefits of lower paid and casual workers.

Furthermore, no one now pays enough into the social security till to provide the benefits he is promised by law. Neither are his employer's tax payments, added to his own, sufficient for this purpose. There is, it is true, a reserve of more than 20 billion dollars in the social security fund, but this is only because virtually everyone who now works is taxed, while only a relatively small number of persons—

(Continued on Page 95)

The Something for Nothing Boys

(Continued from Page 94)

about one to every ten persons paying taxes into the fund—are collecting pensions.

When the time comes for the more than 61 million present social security taxpayers to collect, they will have two sources on which to call for the money. The first is the reserve fund. But there is no money in it. The money has been spent, and government bonds put in its place. To provide money, other people will have to be taxed to pay off the bonds. But the reserve fund will fall far short of meeting pension requirements, long before the majority of present taxpayers come to collect. The rest of the money will have to come from social security taxes paid by their children and grandchildren, at constantly increasing rates.

The current phase of the something-for-nothing racket consists of a lower pension eligibility age—62 years instead of 65—for women, and the payment of pensions to totally and permanently disabled persons after they reach the age of 50. Disabled persons now are relieved of further pension taxes, but must wait until they are 65 to collect.

To the persons, about 1,300,000, affected by these new provisions, the payments will be largely velvet. They will contribute less and get more. But people who keep on working will be presented with a constantly increasing bill. The cost of the increased benefits will be 2 billion dollars a year during the next 20 years and 2½ billions a year thereafter.

The bill raises social security tax rates beginning next January 1, when employee and employer will have to pay, together, 5 per cent of every pay check into the social security fund. Further increases are provided for 1960, 1965, 1970, and 1975, by which time the social security tax collector will be taking 9 per cent of the nation's payroll.

Experience shows, however, that when the time comes to increase these taxes, Congress will back down. It has done so already more frequently than it has enacted scheduled increases. All that does is shift more of the burden to future generations.

The man who retorted to a plea to think of posterity with the question, "What did posterity ever do for me?" now has his answer. Posterity is going to pay his old age pension. Or will it?

Posterity can vote, too, and the increasing burdens of social security are going to make it less popular politically as the taxes necessary to keep the system solvent mount higher and higher. That, of course, is of no consequence to the something-for-nothing Democrats in the house. They aren't looking for posterity's votes—only those of the 1,300,000 whose benefits, if the Senate concurs, will be increased a few months before the polls open next year.

—*Chicago Daily Tribune (July 21, 1955)*

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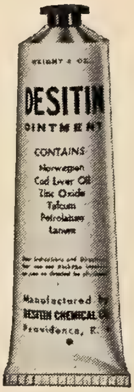
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1. Overall, J. C.: Southern M. J. 47:789, 1954. 2. Editorial: New England J. M. 246:111, 1952.
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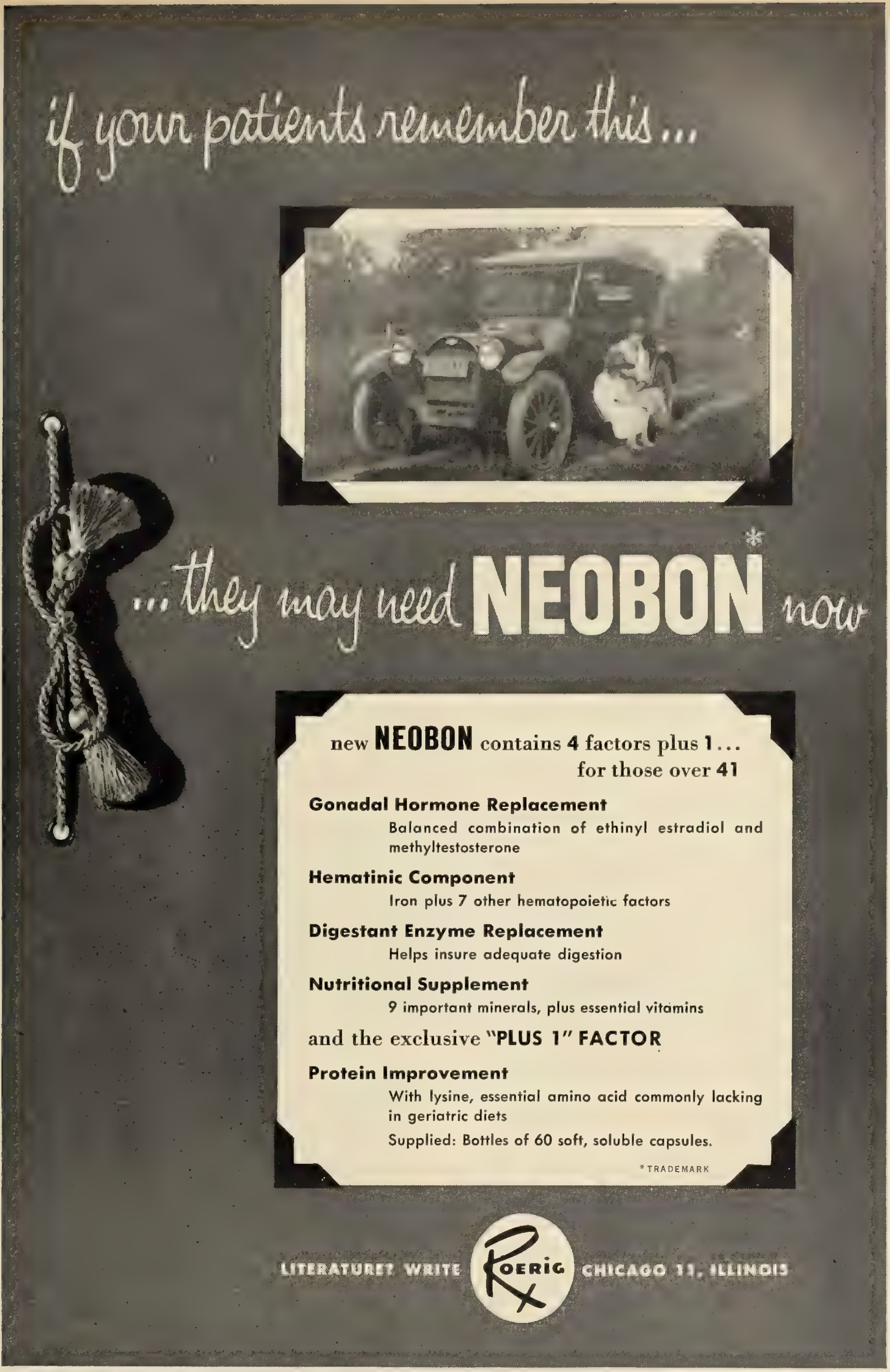

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Someone Must Pay

In a whooping anticipation of elections ahead, the House passed sweeping revisions in the Social Security law by a vote of 372-31. The bill now goes to the Senate where, we earnestly hope, an effort will be made to find out what the taxpayers are getting into.

As with all "welfare" legislation, it is not a pleasant task to quarrel with kindly, humane proposals. It is certainly true, as the House noted, that wives are quite often a few years younger than husbands. Hence it seems reasonable to lower from 65 to 62 the age at which women qualify for old-age annuities.

That way, a couple could have a more substantial income, perhaps enabling the husband to retire at 65 when he might otherwise be unable to do so. For widows and woman workers—although they live longer than men on the average—the lowered age can be justified on the basis of gallantry, equal treatment, or something.

The House legislation comes on the heels of administration-sponsored improvements last year, extending benefits and bringing coverage to some 10 million additional persons.

Barron's Weekly points out that in 1950, the Social Security system was paying an average of $21 monthly to some 2.9 million persons. By June 1954, payments were being made to 6.5 million individuals, at an average monthly rate of more than $50.

Thus what started out as a modest program for a minimum pension of bare-sustenance proportions is mushrooming into a system promising a comfortable living for the retired, care for the disabled and dependent, and with increasing inequalities between contributions and benefits.

As we said, the advocate of caution in this progress has an ungrateful role, something like parading around the feast with a stomach pump. For who can gracefully oppose benefits for women at 62? Or 60? Or even 50? Who can argue that payments to disabled children or their widowed mothers should stop at age 18?

The fact remains, however, that these things cost money. The Social Security system is still young. It has a surplus of $22 billion in its accounts—although the money is spent and what it has are government bonds. But the fund is piling up obligations faster than it is reserves, and sharply higher taxes for the system are already in the works.

One has only to look at the rates which private insurance companies charge for similar insurance, or deferred annuities, to realize what a tremendous

(Continued on Page 110)

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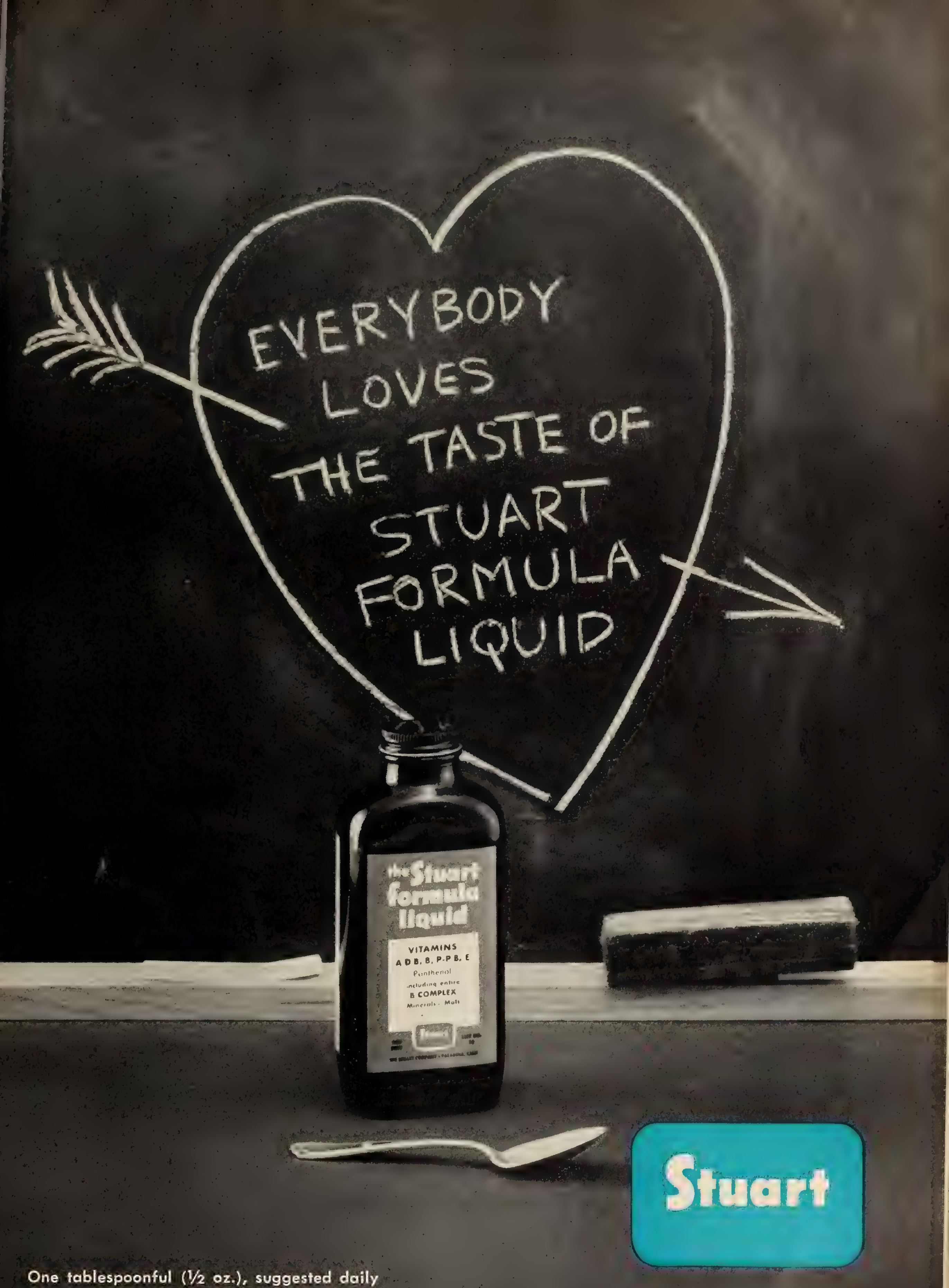
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An Unusual Heart Arrest Case

(Continued from Page 78)

prevented brain damage—inevitable unless oxygen gets to the brain within about four minutes after the heart stops beating.

The case was reported by Dr. Ralph Adams, Wolfeboro, N. H., in a recent issue of the *Journal of the American Medical Association.*

There have been many cases of recovery from cardiac arrest when emergency hand massage was started immediately. Some patients have survived many hours of massage.

However, Dr. Adams said he knew of no other case in which a patient recovered completely after such a long period of ventricular fibrillation. Fibrillation, a complication of cardiac arrest, has been corrected within a few minutes by electrical shock in reported successful cases. The shock convulses the heart and makes it work rhythmically again. This failed in the case of the 11-year-old boy. It took almost two hours of work before the heart suddenly "kicked" and began beating independently and normally.

The emergency measures were started within 10

(Continued on Page 112)

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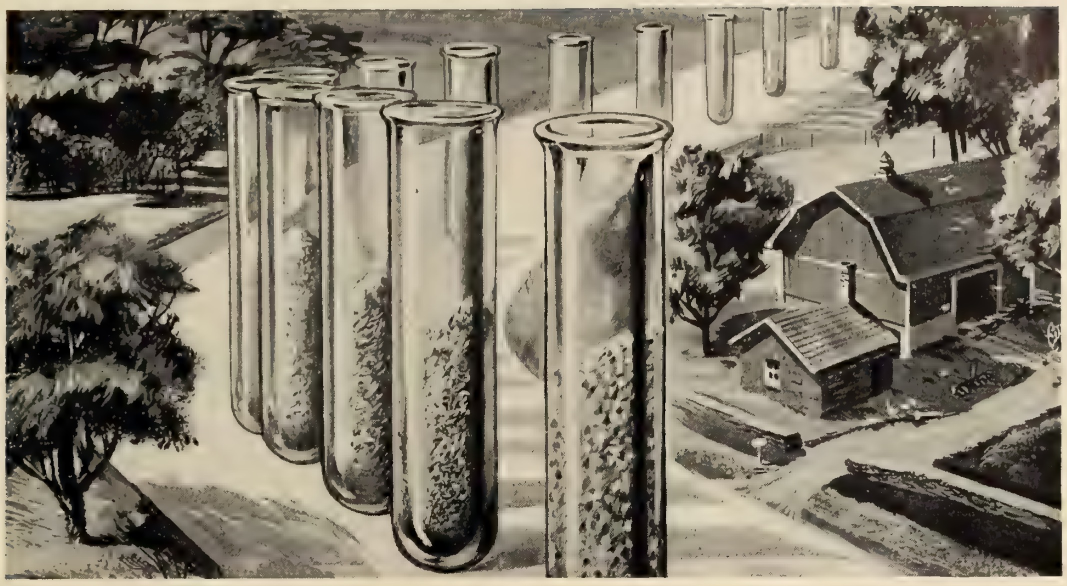

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Encouraging results were also achieved in the management of psoriasis, together with dietary and topical measures,[6] and in fatty livers.[7] In the treatment of diabetes, lecithin together with vitamin E has reduced insulin requirements in certain patients.[8] Research on its potentially useful role in the management of the more complicated forms of deranged lipid and cholesterol metabolism – as encountered in essential hyperlipemia, idiopathic familial hypercholesteremia, xanthomatosis, diabetes, etc. – is now being actively conducted.

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Bibliography: 1. Adlersberg, D., and Sobotka, H.: J. Nutrition *25*:255 (March) 1943. • 2. Adlersberg, D., and others: Gastroenterology *10*:822 (May) 1948. • 3. Adlersberg, D.: New York J. Med. *44*:606 (March 15) 1944. • 4. Adlersberg, D., and others: Am. J. Digest. Dis. *16*:333 (Sept.) 1949. • 5. Augur, V.; Rollman, H. S., and Deuel, H. J., Jr.: J. Nutrition *33*:177 (Feb.) 1947. • 6. Gross, P., and Kesten, M. B.: New York J. Med. *50*:2683 (Nov. 15) 1950. • 7. Schettler, G.: Klin. Wchnschr. *30*:627 (July) 1952. • 8. Dietrich, H. W.: South. M. J. *43*:743 (Aug.) 1950.

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Someone Must Pay

(Continued from Page 100)

"bargain" the Social Security system seems to be offering. To what extent this something-for-nothing offer is a fraud upon future taxpayers is a question that sorely needs an answer.

The House did not even hold hearings upon its bill to add $2 billion a year to Social Security costs. The Senate indicates that it will not be similarly stampeded. It should not be.

The hard truth is that the government cannot pay money to one person without having previously taken it from him or some other person. The great popular appeal of Social Security, of course, rests upon the belief that somebody else is going to get the heavy end of the check.

This expectation could be illusory for so many millions of taxpayers that a sober estimate of how many billions the government is promising, and how it will be paid for, is imperative before we go farther.

It would be unthinkable for some future Congress to renege on a contract sealed by the payment of taxes. But we also have no moral right to obligate future taxpayers to a burden that could become so great as to lower their own standard of living, while they pay for the generous but ill-advised impulses of their predecessors.

—*Chicago Daily News (July 20, 1955)*

Brainwashing May Produce Problems In Future

Chinese Communist brainwashing may play a part in producing future psychiatric symptoms in returnees from Korean POW camps, two St. Louis physicians say.

They also suggest that because of the intensity of the conflict between ideas absorbed in the camps and American thinking, there may be more psychiatric problems in Korean returnees than in a comparable group from German and Japanese POW camps of World War II.

The desire to avoid just such a conflict may have been the reason some prisoners chose to remain in China, they said.

Drs. Peter S. Santucci and George Winokur, from the department of neuropsychiatry of Washington University School of Medicine, outlined the brainwashing technique and the conflicts it can produce in a recent issue of *Archives of Neurology and Psychiatry*, published by the American Medical Association.

"Brainwashing is not merely a method of indoctrination," they said. It is a process which can produce abnormal human behavior through the development of internal conflicts and their accompanying anxiety and confusion.

In brainwashing, prisoners were forced to do certain things, such as sing Communist songs and

(Continued on Page 112)

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(Continued from Page 104)

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(Continued on Page 114)

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An Unusual Heart Arrest Case

(Continued from Page 102)

seconds after the heart stopped during surgery. Dr. Adams said speed was what prevented brain damage that always follows lack of oxygen. Since oxygen-carrying circulation stopped while the heart was not working, oxygen was forced into the lungs—and the brain—by a tube in the throat.

Twenty minutes after leaving the operating room, the boy recognized his mother and gave other indications of being rational. Five months later he appeared to be completely normal.

"Cardiac arrest, either as ventricular fibrillation or as a standstill, is probably the gravest emergency that can befall a patient or his surgeon," Dr. Adams said. It "possibly represents the closest approach to sudden death in which there is yet a chance that the life of the patient may be rescued."

Brainwashing May Produce Problems In Future

(Continued from Page 110)

write pro-Communist statements. When they did not rebel, they were rewarded, usually with extra food. Thus the desirability of this behavior was "reinforced," and the action was more likely to be repeated.

However, if the man did not believe in his statements and activities, internal conflict "inevitably" would result.

A prisoner could solve the conflict in one of three ways. He could outwit his captors by lying. He could refuse to do the bidding of his captors, which would result only in short-lived punishment. Or he could start thinking in favor of his captors, which would result in more rewards and more reinforcement of this behavior.

If he chose the third way, another conflict could occur after his return home, when he would begin

(Continued on Page 116)

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2. Gershenfeld, Louis, and Milanick, Vera E., "Bactericidal and Bacteriostatic Properties of Surface Tension Depressants," Am. J. Pharm., 113:306.

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Brainwashing May Produce Problems In Future

(Continued from Page 112)

to compare American concepts with those ideas absorbed in the prison camp.

The doctors used as an example the case of a 25-year-old Army sergeant of poor economic and educational background, who became mentally ill on his return home from a POW camp.

While a prisoner, he had been forced to attend lectures, where Communist and anti-American propaganda was repeated over and over. Later he was picked for several special duties and eventually sent to an advanced indoctrination school.

Although he probably did not accept the Communist ideas at first, he was rewarded for his activities. In time he began to absorb some of the ideas. This soldier had very little political or socioeconomic knowledge with which to resist brainwashing, compared with men who withstood brainwashing and its effect, partly because they already had well-formed hostility towards Communism.

On his return home, the soldier met with hostility from persons who attacked as traitors those who had been brainwashed. Many of his ideas were now in conflict with those accepted by American

(Continued on Page 119)

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Riboflavin	2.5 mg.	Folic Acid	0.375 mg.
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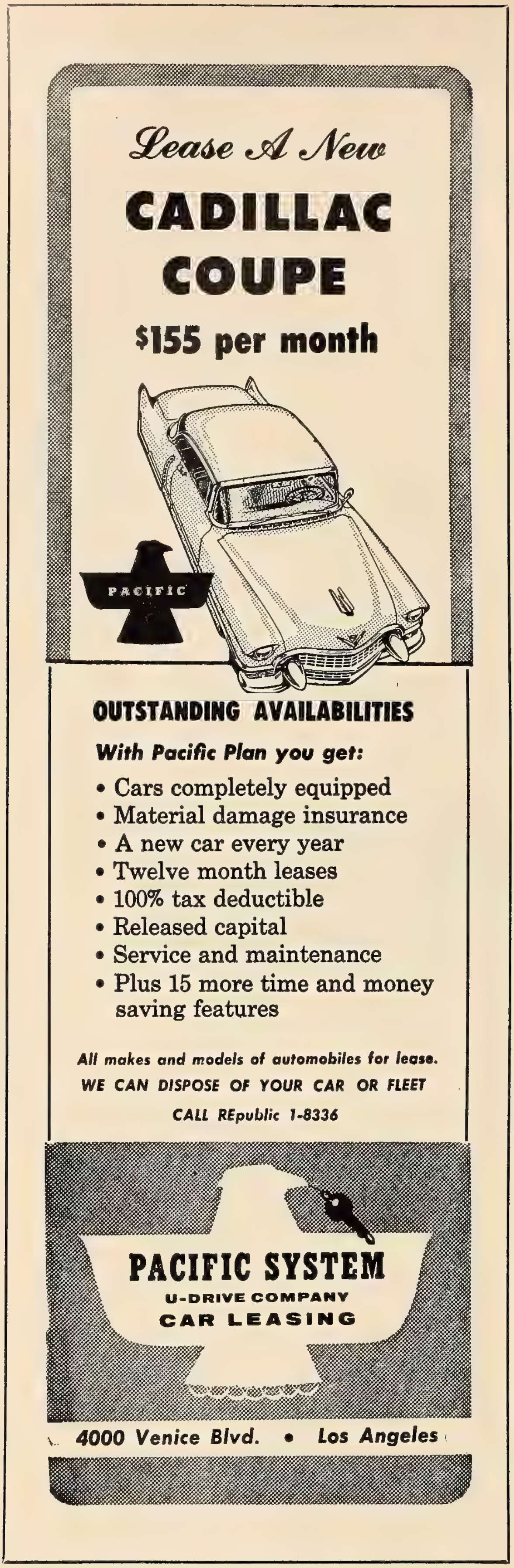

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BOOKS RECEIVED

ADAPTIVE HUMAN FERTILITY. Paul S. Henshaw, Ph.D. The Blakiston Division, McGraw-Hill Book Company, Inc., New York, 1955. 322 pages, $5.50.

CIBA FOUNDATION COLLOQUIA ON AGEING—**Vol. I—General Aspects.** Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Margaret P. Cameron, M.A., A.B.L.S. Little, Brown and Company, Boston, 1955. 255 pages, $6.75.

CLINICAL BIOCHEMISTRY—**Fifth Edition.** Abraham Cantarow, M.D., Professor of Biochemistry, Jefferson Medical College; and Max Trumper, Ph.D., Formerly Lecturer in Clinical Biochemistry and Basic Science Coordinator, Naval Medical School, National Naval Medical Center, Bethesda. W. B. Saunders Company, Philadelphia, 1955. 738 pages, $9.00.

CLINICAL TOXICOLOGY—**3rd Edition, Revised.** Clinton H. Thienes, M.D., Ph.D., Director, Institute of Medical Research, Huntington Memorial Hospital; and Thomas J. Haley, Ph.D., Chief of the Division of Pharmacology and Toxicology, Atomic Energy Project, and Associate Clinical Professor of Medicine, UCLA School of Medicine. Lea and Febiger, Philadelphia, 1955. 457 pages, $6.50.

LECTURES ON THE SCIENTIFIC BASIS OF MEDICINE—**Volume III, 1953-54.** British Postgraduate Medical Federation. University of London, The Athlone Press, 1955. Published in New York by John de Graff, Inc., 64 West 23rd Street, New York 10.

MEDICAL PROBLEMS OF OLD AGE. A. N. Exton-Smith, M.A., M.D. (Cantab.), M.R.C.P., Physician Whittington Hospital, London. John Wright & Sons, Ltd., Bristol. Distributed in U.S.A. by Williams and Wilkins Company, Baltimore, 1955. 331 pages, $7.00.

NEW AND NON-OFFICIAL REMEDIES. Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1955. J. B. Lippincott Company, Philadelphia, 1955. 653 pages, $3.35.

PATHOGENESIS OF POLIOMYELITIS. Harold K. Faber, M.D., Professor Emeritus of Pediatrics, Stanford University School of Medicine. Charles C. Thomas, Publisher, Springfield, 1955. 157 pages, $5.00.

PSYCHIATRY AND THE LAW—**The Proceedings of the Forty-Third Annual Meeting of the American Psychopathological Association, held in New York City, June 1953.** Edited by Paul H. Hoch, M.D., New York State Psychiatric Institute; College of Physicians and Surgeons, Columbia University; and Joseph Zubin, Ph.D., New York State Psychiatric Institute; Department of Psychology, Columbia University, New York. Grune & Stratton, New York, 1955. 232 pages, $5.50.

PSYCHOPATHOLOGY AND EDUCATION OF THE BRAIN-INJURED CHILD—**Volume II. Progress in Theory and Clinic.** Alfred A. Strauss, President and Director, Cove Schools for Brain-Injured Children, Racine, Wis.; and Newell C. Kephart, Professor of Psychology, Purdue University, Lafayette, Ind. Grune & Stratton, New York, 1955. 266 pages, $6.00.

SPINE, THE—**A Radiological Text and Atlas.** Bernard S. Epstein, M.D., Chief, Department of Radiology, the Long Island Jewish Hospital. Lea & Febiger, Philadelphia, 1955. 539 pages, 721 illustrations, $16.50.

SURGICAL FORUM—**Clinical Congress of the American College of Surgeons, 1954—Vol. V.** Committee on Forum on Fundamental Surgical Problems. W. B. Saunders Company, Philadelphia, 1955. 851 pages, $11.00.

TEXTBOOK OF MEDICINE, A — **Ninth Edition, Illustrated.** Edited by Russell L. Cecil, M.D., Sc.D., Professor of Clinical Medicine Emeritus, Cornell University; and Robert F. Loeb, M.D., Sc.D., D.Hon.Causa., LL.D., Bard Professor of Medicine, Columbia University. W. B. Saunders Company, Philadelphia, 1955. 1786 pages, $15.00.

Physicians Suggest Exercise to Relieve Back Pain

A simple exercise which strengthens the abdominal muscles can help relieve a common type of acute low back pain in some patients, according to two Georgia physicians.

The exercise is outlined by Drs. Robert P. Kelly and J. Trimble Johnson of Emory University in a recent issue of the *Journal of the American Medical Association.*

The abdominal muscles are supposed to help keep the lower spine flexible and in place, but they often become weak through lack of use. Then they are unable to control the spine when some unusual motion causes a "catch" in the back.

The "catch" is accompanied by excruciating pain, spasms of the back muscles, and pain in the legs. The condition is aggravated by prolonged sitting, standing or lying down.

The first step in the treatment is to relieve the muscle spasm by "hanging," the doctors said. The patient lies face down on an examining table, with his legs hanging over the elevated end of the table. This is continued at intervals until the pain and spasm subside.

Then the daily abdominal muscle exercise must be started. The patient lies flat on his back on the floor with his knees bent. Thirty repetitions of the exercise are done in groups of ten, with a rest of one or two minutes between sets.

The first movement consists of bending the neck, bringing the chin as near the breastbone as possible. Added to this movement in the second set is an effort to raise the shoulders slightly from the floor. In the third group the neck is bent and the shoulders are elevated as far toward a sitting position as possible.

The rhythm of the exercise is slow and deliberate. Lurching motions should be avoided.

In most cases, this exercise, done daily even after complete disappearance of the pain, will maintain the desired tone of the abdominal muscles and prevent future "catches," the doctors said. In addition, correct posture should be maintained.

Coroner Calls for More Autopsies

A physician coroner says his fellow medicolegal officers should perform more autopsies, and gives an index for measuring officers' efficiency.

A coroner should perform between 20 and 25 autopsies for every 100 deaths in his community, Dr. Henry W. Turkel, coroner of the city and county of San Francisco, said in a recent issue of the *Journal of the American Medical Association.*

That is the proportion of deaths generally agreed to need medicolegal investigation. However, there has been no agreement on what proportion of these should be autopsied as well as investigated. Dr. Turkel said all of them should.

Autopsy is the only certain way to find a true cause of death, Dr. Turkel said. Autopsies often uncover crimes and violence which might have passed unrecognized. They also help insure fair decisions in civil liability cases, and can expose contagious and reportable diseases, which are of concern to the public.

Few communities have an autopsy rate of 20 to 25 per cent. The low rate would indicate that medicolegal officers are yielding to expediency by accepting superficial evidence and bending under pressure, or are bound by budget matters. In addition, there is often public resistance to autopsy.

A coroner's office usually has been judged on the basis of the percentage of medicolegal cases given autopsy. But that rate "is utterly meaningless in itself," Dr. Turkel said, for a coroner may accept only a few cases, yet perform autopsies on all, or he may accept many cases and perform only a few autopsies.

Dr. Turkel said a study of 400 consecutive cases handled by his office showed that a large percentage of deaths would have been attributed to wrong causes if no autopsy had been done.

The autopsy rate of a community can be improved, Dr. Turkel said, by convincing the public of the need for and the usefulness of autopsy. The percentage index is the best way to show if and where improvement is needed in the existing group.

The author listed the types of death requiring autopsy if the highest possible standards are to be met.

They include violent deaths with possible criminal liability; violent or accidental deaths with possible civil liability; deaths without previous medical attention or no knowledge of events before death; deaths after known illness but no knowledge of events preceding death; deaths in which the attending physician can find no cause, and unexpected deaths.

Deaths to which there are lay witnesses who can describe symptoms and events preceding the death also must be investigated.

A cause of death based only on a lay witness' report is both medically and technically inexact, the author said.

In all of these types "there is a reasonable possibility that crime or violence will be exposed by autopsy," Dr. Turkel said. In addition, autopsy may reveal that deaths thought due to violence or accident are actually of natural causes, thereby relieving some person of civil liability or moral responsibility.

ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to notify California Medicine promptly when changes are indicated in their roster information.)

Alameda-Contra Costa Medical Assn., 6230 Claremont Avenue, Oakland 18. Meets Third Monday, 8:15 p.m., Hunter Hall, Oakland.
Pres., Harold P. Maloney, 411 30th St., Oakland.
Secy., Thomas Dozier, 512 5th St., Antioch.

Butte-Glenn Medical Society. Meets Fourth Thursday.
Pres., Frank O'Neill, 1334 Myers St., Oroville.
Secy., Phillip Morgans, 360 E. 1st St., Chico.

Fresno County Medical Society, 616 Security Bank Building, Fresno. Meets Second Tuesday, 6:30 p.m., Sunnyside Country Club.
Pres., Charles S. Mitchell, 1316 Olive Ave., Fresno.
Secy., William L. Argo, 1759 Fulton, Fresno.

Humboldt County Medical Society. Meets Second Thursday.
Pres., Shiras Jarvis, 730 7th St., Eureka.
Secy., Herman A. Iverson, 507 F St., Eureka.

Imperial County Medical Society. Meets Second Tuesday, 8 p.m., Pioneer Memorial Hospital, Brawley.
Pres., Edgar A. Thompson, Pioneer Memorial Hospital, Brawley.
Secy., Ernest Brock, 200 S. Imperial Ave., Imperial.

Inyo-Mono County Medical Society. Meets Fourth Tuesday except December, January, February.
Pres., C. L. Scott, 287 Academy, Bishop.
Secy., Robert W. Denton, 611 W. Line, Bishop.

Kern County Medical Society, 2603 "G" Street, Bakersfield. Meets Third Tuesday, 7:30 p.m., Stockdale Country Club except June, July, August.
Pres., J. M. Hayes, 2531 G St., Bakersfield.
Secy., John R. Almklov, 2441 G St., Bakersfield.

Kings County Medical Society. Meets Second Monday, 8:00 p.m., Legion Hall, Hanford.
Pres., Edwin E. Kerr, Van Sicklen Bldg., Hanford.
Secy., Howard A. Francis, Van Sicklen Bldg., Hanford.

Lassen-Plumas-Modoc County Medical Society. Meets on call.
Pres., Charles W. Brown, Western Pacific Hospital, Portola.
Secy., William B. McKnight, Quincy.

Los Angeles County Medical Assn., 1925 Wilshire Blvd., Los Angeles 57. Meets First and Third Thursdays, 1925 Wilshire Blvd., Los Angeles.
Pres., Ewing L. Turner, 1930 Wilshire Blvd., Los Angeles 57.
Secy., J. Norman O'Neill, 1930 Wilshire Blvd., Los Angeles 57.

Madera County Medical Society.
Pres., Gilbert G. Daggett, 500 E. Yosemite Ave., Madera.
Secy., Robert B. Rowe, 525 E. Yosemite Ave., Madera.

Marin County Medical Society, 817 "D" St. San Rafael. Meets Fourth Thursday of every month, 7:00 p.m.
Pres., C. W. Russell, 817 "D" St., San Rafael.
Secy., Wm. Burgett Smith, 817 "D" St., San Rafael.

Mendocino-Lake County Medical Society
Pres., Martin S. Barnes, 615 Main, Fort Bragg.
Secy., Neely E. Bradford, Box D, Boonville.

Merced County Medical Society. Meets Fourth Thursday, Hotel Tioga, Merced.
Pres., Harry R. Maytum, 595 East 26th St., Merced.
Secy., Gerald D. Wood, 544 West 25th St., Merced.

Monterey County Medical Society. Meets First Thursday.
Pres., Chester G. Moore, 484 S. Main St., Salinas.
Secy., Seymour Turner, 921 E. Alisal St., Salinas.

Napa County Medical Society. Meets Second Wednesday.
Pres., Wrenshall A. Oliver, Box "A," Imola.
Secy., Robert C. Ashley, 2560 Jefferson St., Napa.

Orange County Medical Association, 1226 N. Broadway, Santa Ana. Meets First Tuesday, 7:00 p.m.
Pres., Ralph E. White, 203 E. 8th St., Santa Ana.
Secy., Chad M. Harwood, 1202 N. Broadway, Santa Ana.

Placer-Nevada-Sierra County Medical Society. Meets every second Wednesday of each month.
Pres., D. M. Kindopp, 1130 Lincoln Way, Auburn.
Secy., T. J. Rossitto, 1166 High St., Auburn.

Riverside County Medical Association, 4241 Market Street, Riverside. Meets Second Monday, 8:00 p.m., El Loro Room, Mission Inn.
Pres., Richard N. Boylan, 3616 Main St., Riverside.
Secy., Vean M. Stone, 4241 Market St., Riverside.

Sacramento Society for Medical Improvement 2731 Capitol Ave., Sacramento. Meets Third Tuesday, 8:30 p.m., Sutter Hospital Auditorium.
Pres., Jack V. Chambers, 2100 Capitol Ave., Sacramento.
Secy., Charles E. Schoff, 1116 26th St., Sacramento.

San Benito County Medical Society. Meets First Thursday, Hazel Hawkins Memorial Hospital, Hollister.
Pres., E. C. Sheldon, 1610 Cienega Road, Hollister.
Secy., E. Nelson Moore, 1470 Buena Vista Road, Hollister.

San Bernardino County Medical Society. Meets First Tuesday, 8:00 p.m., San Bernardino County Charity Hospital.
Pres., H. R. Morris, 1595 "D" St., San Bernardino.
Secy., Carl M. Hadley, 315 Platt Bldg., San Bernardino.

San Diego County Medical Society, 101 Medical-Dental Bldg., San Diego 1. Meets Second Tuesday, Mission Valley Country Club, 950 West Camino Del Rio.
Pres., Ralph B. Mullenix, 3415 Sixth Ave., San Diego 3.
Secy., James I. Knott, 3712 30th St., San Diego 4.

San Francisco Medical Society, 250 Masonic Ave., San Francisco 18. Meets Second Tuesday, 8:15 p.m., 250 Masonic Ave., San Francisco 18.
Pres., Herbert C. Moffitt, Jr., 250 Masonic Ave., San Francisco 18.
Secy., Robert C. Combs, 250 Masonic Ave., San Francisco 18.

San Joaquin County Medical Society. Meets First Thursday, 8:15 p.m., 936 N. Commerce St., Stockton.
Pres., John F. Mayo, 310 W. Pine St., Lodi.
Secy., Frank A. McGuire, 305 Medico-Dental Bldg., Stockton.

San Luis Obispo County Medical Society. Meets Third Saturday, 7:00 p.m., Anderson Hotel, San Luis Obispo.
Pres., Emil C. Oberson, Marsh at Garden Sts., San Luis Obispo.
Secy., Tibor A. Beresky, 1304 Garden St., San Luis Obispo.

San Mateo County Medical Society, 122 Second Ave., San Mateo. Meets Third Tuesday of each month.
Pres., James S. Edwards, 36 N. San Mateo Dr., San Mateo.
Secy., Henry A. Brown, 77 N. San Mateo Dr., San Mateo.

Santa Barbara County Medical Society, 300 West Pueblo St., Santa Barbara. Meets Second Monday, Cottage Hospital.
Pres., J. Gary Campbell, 1525 State St., Santa Barbara.
Secy., A. E. Wentz, 300 West Pueblo St., Santa Barbara.

Santa Clara County Medical Society, 1024 The Alameda, San Jose 26. Meets Third Monday of every month, except in July and August.
Pres., Pierce C. Barrette, 634 E. Santa Clara St., San Jose.
Secy., Henry C. Dahleen, 652 E. Santa Clara St., San Jose.

Santa Cruz County Medical Society. Meets every Second month, Second Tuesday. Time, place to be announced.
Pres., H. S. Barr, 850 Main St., Watsonville.
Secy., Samuel B. Randall, 230 Walnut Ave., Santa Cruz.

Shasta County Medical Society. Meets First Monday.
Pres., Rex N. Carr, 2007 Pine St., Redding.
Secy., Roland Jantzen, 1726 Market St., Redding.

Siskiyou County Medical Society. Meets Sunday on call.
Pres., Werner F. Hoyt, Lassen Lane, Mt. Shasta.
Secy., Dragutin D. Todorovic, 224 Branstetter St., Dunsmuir.

Solano County Medical Society. Meets Second Tuesday, 8:00 p.m., at different meeting places.
Pres., Melvin A. Schmutz, 650 Tennessee St., Vallejo.
Secy., John C. Miller, 1000 Marin St., Vallejo.

Sonoma County Medical Society, 300 American Trust Bldg., Santa Rosa. Meets Second Thursday.
Pres., Robert S. Westphal, 3325 Chanate Road, Santa Rosa.
Secy., Frank E. Lones, 300 American Trust Bldg., Santa Rosa.

Stanislaus County Medical Society. Meets Third Thursday of the month, 7 p.m., Hotel Covell, Modesto.
Pres., Ivan E. Martin, 1628 I St., Modesto.
Secy., Robert W. Purvis, 709 - 18th St., Modesto.

Tehama County Medical Society. Meets at call of President.
Pres., Harve Wm. Jourdan, 410 Pine Street, Red Bluff.
Secy., Frank N. Townley, 304 East Solano, Corning.

Tulare County Medical Society.
Pres., J. J. McNearney, 140 N. M St., Tulare.
Secy., Gordon L. Jackson, P.O. Box 345, Terra Bella.

Ventura County Medical Society. Meets Second Tuesday, 7:15 p.m., Colonial House, Oxnard.
Pres., R. F. Robertson, 813 Yale, Santa Paula.
Secy., F. K. Helbling, 34 N. Ash St., Ventura.

Yolo County Medical Society. Meets First Wednesday.
Pres., Thomas Y. Cooper, 218 F St., Davis.
Secy., Neil D. Elzey, Woodland Clinic, Woodland.

Yuba-Sutter-Colusa County Medical Society. Meets Second Tuesday.
Pres., John F. Belz, 725 4th St., Marysville.
Secy., Robert I. Hodgin, 729 D St., Marysville.

(For roster of C.M.A. committees and other organizations, see last month's issue.)

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Infectious Diseases Still Take "Immense Toll"

"Top priority" in U. S. health programs must be given to communicable diseases, because they most frequently attack "the young and vigorous . . . on whom the present and future productive power of the nation depends," a U. S. Public Health Service official recently stated.

While "major killers of a half century ago" largely have been controlled, other communicable diseases still take an "immense toll" in death and disability among citizens of the U. S., Dr. Theodore J. Bauer, chief of the U. S. Communicable Disease Center, Atlanta, Ga., said in a recent issue of the *Journal of the American Medical Association.*

One of every 10 deaths is caused by communicable disease. The situation is "far more serious" in the age group under 35 years, where the ratio is 1 to 4. In the older group it is 1 to 12. In addition the diseases cause the majority of absences from school and work. They also may lead to future disorders of the heart, liver, kidney, nervous system, and other organs.

Public health workers aim toward the control of all communicable diseases, Dr. Bauer said. Control measures for diseases of today must be developed and research into diseases of obscure origin must continue.

If those "spectacular and dreadful" diseases of the past, such as yellow fever, typhus, and smallpox, are to remain in check, constant watchfulness and effective use of available control measures are necessary, he said.

"Perhaps of greatest concern at the moment" are the "ultramicroscopic" viruses, Dr. Bauer said. They produce more than 40 known diseases, among them polio, the common cold, measles, and mumps. The major problems in this field include finding the means of transmission, adequate methods of diagnosing, and ways of controlling the diseases.

A recently developed problem is the appearance of bacteria which resist the action of antibiotics. While antibiotics have been "dramatically effective" against such bacteria-caused diseases as tuberculosis and scarlet fever, their effectiveness is being lessened by the appearance of the resistant bacteria. Ways of controlling these bacteria must be found.

Some of Dr. Bauer's comments in the Journal on individual diseases follow:

Poliomyelitis—This complex disease will continue to be an enigma until the basic factors governing its occurrence and spread are found. More efficient laboratory diagnostic tests are needed.

Viral hepatitis—The viral nature of this increasingly prevalent disease of the liver was found only recently. No control measures have been developed.

Insect-carried encephalitis—Man apparently only accidentally acquires these viruses as they go

(Continued on Page 20)

Dangers of Insecticide

(Continued from Page 14)

recommended. Since milk, oil purgatives, and other fatty or oily substances speed absorption of the poison, they should be avoided.

The recorded nonfatal cases of chlordane poisoning were largely the result of carelessness in handling, storage, or labeling of containers, the report said.

An accompanying Journal editorial outlined a five-point program of the new American Medical Association Committee on Toxicology to combat accidental poisoning. In 1951, poisoning accidents caused 1,497 deaths and 100 to 150 times as many nonfatal poisonings.

The committee is working to (1) encourage informative labeling and safe packaging, (2) stimulate laboratory and clinical research for antidotes, (3) standardize technical names, (4) develop standards for evaluating hazardous substances, and (5) sponsor a sustained educational program.

Some common household items which cause poisoning are bleaches, cleaning fluid, furniture polish, lye, kerosene, rat and insect poisons, weed killers, medicines such as aspirin, oil of wintergreen, and boric acid, cosmetics and toilet goods.

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1. Hock, C.W.: J. M. A. Georgia 40:22-4, 1951. 2. Chamberlain, D. T.: Gastroent. 17:224-5, 1951. 3. Derome, L.: Canadian Med. Assn. J. 69:532, 1953.

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Dosage:

Adults — 2 capsules or 2 teaspoonfuls of syrup, t.i.d. before or after meals. If necessary repeat at bedtime.

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Infectious Diseases Still Take "Immense Toll"

(Continued from Page 17)

through a complicated life cycle among other animals. In addition to the native encephalitis types, others exist in various parts of the world. It is not known what natural forces may introduce these foreign viruses among American insects and animals or what factors lead to their infection of man.

Psittacosis—Control of this pneumonia-like disease, which is spread by parakeets and some domestic fowl, requires cooperation of owners, producers, and distributors in treating or destroying diseased birds. No immunizing agents are yet available for either man or birds.

Rabies—The virus recently was found in insect-eating bats, which suggests that more animals carry the disease than formerly was thought. The discovery points to the necessity of determining all animal species that can transmit the disease to man and domestic animals.

Smallpox—The last outbreak of 11 confirmed cases in New York in 1947 showed that "universal vaccination may be an accepted principle, but . . . is not universal practice."

Yellow fever—This disease has been eradicated in the U.S., but its mosquito carrier still abounds in the southern states. The virus persists in Central and South American jungle animals. Because the disease occasionally "spills over" into port cities, the chance of its appearance in this country cannot be ignored.

Streptococcic sore throat and scarlet fever—The gradual increase in cases since the all-time low in 1950 may indicate that antibiotics, while effective in curing the diseases, have not been effective in preventing transmission. These once highly fatal diseases now are considered mild and harmless, but their role in producing subsequent heart disease is of particular concern.

Epidemic cerebrospinal meningitis—The reason for the disease's unusual epidemic cycle—cases increasing over a two-to-five-year period and then subsiding—is not yet understood. From 1948 through 1951, the fatality rate passed that of the previous peak years. This civilian rate also was higher than that of the Army during World War II.

Diarrheal diseases—Clarification of the relationship between these diseases and parasitic infections is needed, as are the roles of personal relationships and sanitation in their spread.

Diphtheria—The level of immunity to diphtheria is not known for most communities, so when or where one case will result in an outbreak cannot be predicted. "Flare-ups" do occur. Following one outbreak of 35 cases in a midwest community of 9,500

(Continued on Page 22)

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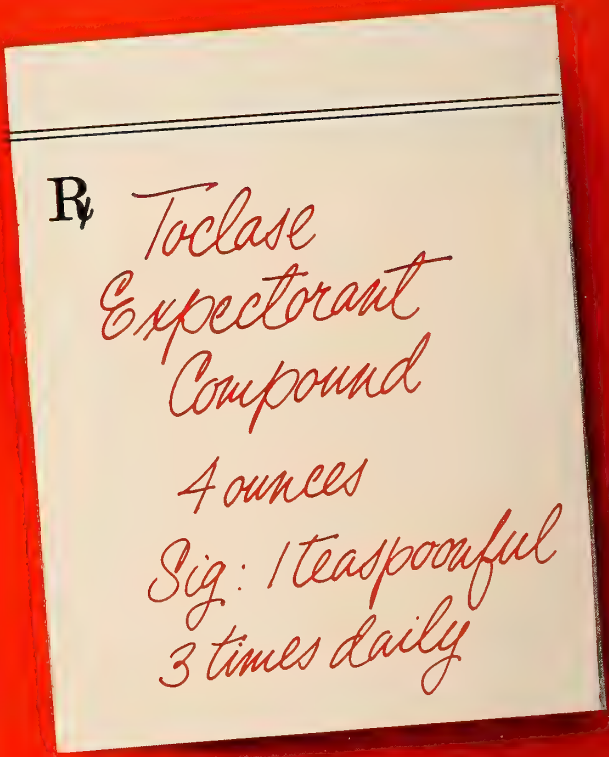

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Terpin Hydrate N.F.	16.67 mg.
Chloroform U.S.P.	2.45 mg.
Sodium Citrate U.S.P.	66.16 mg.
Sodium Chloride U.S.P.	1.67 mg.
Citric Acid U.S.P.	6.66 mg.
Menthol U.S.P.	0.83 mg.
Alcohol	6.8%

in an aromatic demulcent vehicle.

Toclase Syrup

Each 5 cc. teaspoonful contains:

Carbetapentane Citrate (Toclase)	7.25 mg.
Menthol U.S.P.	0.5 mg.
Sodium Citrate U.S.P.	11.95 mg.
Mono-Sodium Glutamate	1.67 mg.
Sodium Chloride U.S.P.	1.67 mg.
Alcohol	5%

in an aromatic demulcent vehicle.

Detergents Are No Harder on Hands Than Some Soaps

Synthetic detergents probably do not cause any more skin eruptions than did the strong old-fashioned soaps, so stated a Boston dermatologist.

Even some manufacturers at times imply in their advertising that "detergent burn" or "detergent dermatitis" has appeared with the increasing use of detergents. However, Dr. George E. Morris thinks that hand irritations probably are not any commoner now than they were prior to the widespread use of detergents. The cause may just be recognized more frequently now.

Detergents, which are complex chemicals derived from petroleum, animal, or vegetable oils and sulfuric acid, may cause dryness and scaling, "water blisters," or secondarily infected lesions of the hands. The logical treatment, according to Dr. Morris, is to discontinue using the detergent which caused the trouble.

He also suggested that housewives with such trouble wear white or grey cotton gloves under rubber gloves whenever they wash dishes or clothes. In addition, they should use one of the "neutral fine-fabric" detergents in cold water. Hot water aggravates the condition.

Dr. Morris' views were expressed in a recent issue of the *Archives of Dermatology*, published by the American Medical Association.

Football Players' Disorder Studied

If a doctor lets parents worry him into benching every football player who developed a disorder known as hematuria, he'd end up benching the whole team.

Hematuria is a kidney ailment which may accompany the strenuous exertion of football. Many players have it some time during the season. Each year doctors are caught between parents who want their son benched and fans who want their star player back.

However, researchers making a survey of 37 university varsity football players during the 1954 season found no reason to bench players who developed hematuria.

The survey is reported in a recent issue of the *Journal of the American Medical Association* by Alex W. Boone, M.D., and Earl Haltiwanger, M.D., of the department of surgery, and Robert L. Chambers, B.S. Ed., of the physical education department, Duke University, Durham, N. C.

The disorder, which consists of blood in the urine, appeared in all the players, but cleared with rest. In fact, the rapidity with which it cleared was remarkable, the authors said.

Even six players who had bleeding sufficient to discolor the urine, reverted to "football normal" within three to four days.

(Continued on Page 26)

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Infectious Diseases Still Take "Immense Toll"

(Continued from Page 20)

persons, school children were checked for immunization. Only about one third were found to be adequately protected against the disease.

Tuberculosis—While much progress has been made, over 100,000 newly discovered cases have been reported annually for the last 10 years. So long as so many active cases are reported, tuberculosis cannot be considered a conquered disease. Although the death rate has declined in recent years, the case rate shows no similar decline.

Venereal diseases—Disability and death from these have been diminishing, but until practical, reliable laboratory diagnostic tests and methods of immunization are developed, the best control measures will continue to be education of the public, intensive searches for infected persons and prompt treatment.

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Surgical Anatomy and Clinical Surgery, Two Weeks, October 24.
Surgery of Colon and Rectum, One Week, October 17, November 28.
General Surgery, One Week, October 17.
Gallbladder Surgery, Ten Hours, October 24.
Fractures and Traumatic Surgery, Two Weeks, October 17.

GYNECOLOGY — Office and Operative Gynecology, Two Weeks, November 28.
Vaginal Approach to Pelvic Surgery, One Week, November 7.

OBSTETRICS—General and Surgical Obstetrics, Two Weeks, November 7.

MEDICINE—Gastroenterology, Two Weeks, October 24.
Electrocardiography and Heart Disease, Two-Week Basic Course, October 10.
Gastroscopy, Forty-Hour Basic Course, November 7.
Dermatology, Two Weeks, October 17.

RADIOLOGY—Clinical Course, Two Weeks, by appointment.
Clinical Uses of Radioisotopes, Two Weeks, October 10.

PEDIATRICS—Clinical Course, Two Weeks, by appointment.

UROLOGY—Two-Week Course, October 10.

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Iron (as $FeSO_4$)	15 mg.
Iodine (as KI)	0.15 mg.
Boron (as $Na_2B_4O_7.10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Purified Intrinsic Factor Concentrate	0.5 mg.
Magnesium (as MgO)	1 mg.
Manganese (as MnO_2)	1 mg.
Potassium (as K_2SO_4)	5 mg.
Zinc (as ZnO)	0.5 mg.
Calcium (as $CaHPO_4$)	69 mg.
Phosphorus (as $CaHPO_4$)	53.8 mg.
Dibasic Calcium Phosphate	236 mg.
Molybdenum (as $Na_2MoO_4.2H_2O$)	0.2 mg.

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Cite Health Hazards of Chemicals

The American Medical Association Committee on Toxicology has set out to acquaint the public with the possible dangers of many chemical products being used today in the home, on farms, and in industry.

It is estimated that there are a quarter of a million brand name chemical products on the market. All of them may be useful—but handled improperly they may become killers, cripplers, and destroyers of property.

Understanding of the uses and the potential dangers of the wealth of products available is needed to prevent the estimated 3,300 accidental poison deaths which result each year from misuse of chemicals.

The array is so large and so many combinations of chemicals are possible that no complete catalogue of all available products has been made, the committee said.

As part of its campaign to spread information about these products and their hazards, the committee will sponsor a symposium on health hazards of chemicals December 29 before the Pharmacy Section at the annual meeting of the American Association for the Advancement of Science, in Atlanta, Ga.

Bernard Conley, secretary of the American Medical Association Committee on Pesticides—which is cosponsoring the discussion—will be moderator for the symposium. He said the purpose of the meeting is to interpret new knowledge of chemical products to scientists in various fields, so they in turn may use and spread the information.

On the A. A. A. S. meeting symposium will be Drs. Lester M. Petrie, director, preventable diseases service of the Georgia Department of Public Health, Atlanta; Wayland J. Hayes, chief of the toxicology section of the Communicable Diseases Center, U. S. Public Health Service, Savannah; and Irvin Kerlan, associate medical director of the federal Food and Drug Administration, Washington; and Mrs. Veronica Conley, assistant secretary of the American Medical Committee on Cosmetics, Chicago.

Football Players' Disorder Studied

(Continued from Page 21)

The first signs of hematuria were found during the preseason conditioning exercises. There was a moderate increase in its occurrence at the beginning of body contact drills.

After each Saturday game, there was a peak in the number of players with hematuria, but that number usually dropped by the following Wednesday. The postgame rate remained about the same throughout the season, the authors said.

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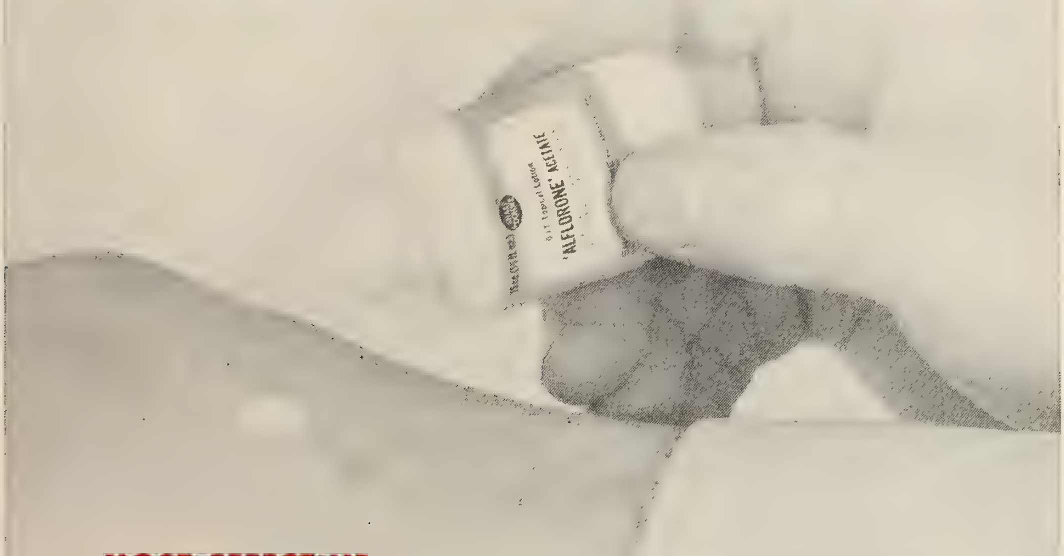

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Governors' Conference

Governors of all states recently held a week-long conference in Chicago, and invited to one of their plenary sessions were Dr. Leo H. Bartemeier, chairman of the American Medical Association Council on Mental Health, and Council Secretary Richard J. Plunkett. It was the first time in the 47 years' history of governors' conferences that medical specialists were asked to participate in a roundtable discussion.

As chairman of the council, Dr. Bartemeier gave a graphic acount of the broad mental health problem as it exists today. He called mental health the "nation's No. 1 public enemy," and he told the governors that the greatest emphasis now should be placed on prevention of mental illness and promotion of mental health. As a result of his remarks, Gov. John F. Sims of New Mexico said later that these objectives could be carried out through a public relations campaign among voters and legislators interested in the problem.

Dr. Bartemeier suggested that much stronger emphasis be placed on the development of psychiatric units in all general hospitals, pointing out that community hospitals must assist in the work of treatment and prevention of mental illness. This requires, he said, not only the help of doctors, but of all community resources.

Among the problems confronting the governors themselves were inadequacy of trained staffs for mental hospitals and the tendency of one state to raid another state for personnel in about the same way that universities compete for football players. The need for increased funds for research also was stressed.

From a medical standpoint, one of the most important things coming out of the governors' conference was the approval and endorsement by official resolution of the new Joint Commission on Mental Illness and Health, sponsored and established by the American Medical Association, the American Psychiatric Association, and 20 other national organizations interested and working in the field of mental health.

Drs. Bartemeier and Plunkett acquainted the governors with the objectives of the joint commission in a memorandum which outlined, among other things, the objectives of the National Mental Health Study Act of 1955 which was enacted by Congress.

The objectives and purposes of the joint commission as stated in its articles of incorporation are:

1. To study mental illness and mental health and the medical, psychological, social, economic, cultural, and other factors that relate to the etiology and course of development of mental illness, and to the advancement of mental health;

2. To study ways and means of furthering the

(Continued on Page 33)

Governors' Conference

(Continued from Page 32)

discovery, development, and application for all effective methods, practices, and therapies for the diagnosis, treatment, care, and rehabilitation of the mentally ill and retarded, and for the promotion of mental health:

3. To study and advance ways and means of recruiting and training adequate personnel for the diagnosis, treatment, care, and rehabilitation of the mentally ill and retarded, and for the promotion of mental health:

4. To survey all aspects of the problems of mental illness and mental health and to formulate comprehensive plans and programs for the improvement of all methods and practices for the diagnosis, treatment, care, and rehabilitation of the mentally ill and retarded, and for the promotion of mental health;

5. To analyze and make available to the Congress, the Surgeon General, the governments of the several states, and other interested public and private associations, organizations, agencies, and persons, in annual and interim reports, or otherwise, the results of all studies and surveys mentioned in the preceding paragraphs.

The governors also were asked specifically to cooperate with the joint commission by lending the aid of their executive offices to the actual survey work which will begin late this year or early in 1956.

—A.M.A. Secretary's Letter

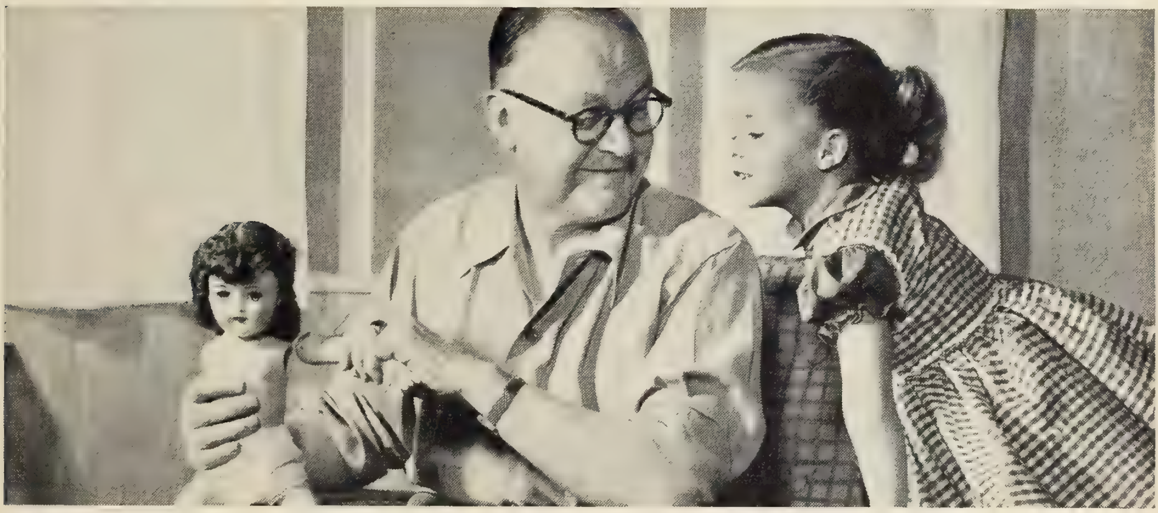
A Good Friend of the Medical Profession

Ex-President Herbert Hoover proved again recently that he is a good friend of the medical profession.

He spoke at Newburg, Oregon—the scene of his boyhood—on his 81st birthday and nearly all of his speech, entitled "Our American Way of Life," extolled the family doctor. After his fine address, the residence of the late Dr. Henry John Minthorn was made one of the Hoover shrines throughout the country.

"The species of the country doctor is not extinct," Mr. Hoover said. "With urban life, paved roads, and the automobile, he has changed his name to that of the family doctor. He is better equipped to fight disease and accident, but the family doctor has the same qualities of moral strength, friendship, and family guidance as of old."

Writing from San Francisco, Dr. L. R. Chandler said, "the Chief really did a good job of aggrandizing the family doctor in his speech . . . medicine, truly, has a wonderful friend in Mr. Hoover."



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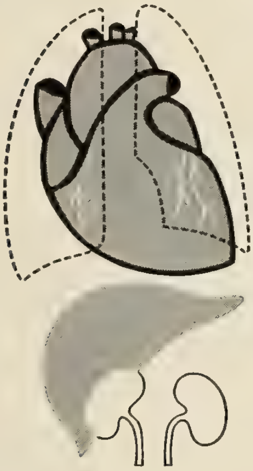

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Cortisone Limits Effects of Apoplectic Stroke

The dramatic effects of cortisone in "limiting the assault" of apoplexy were reported recently by three New York physicians.

Cortisone was given to 35 patients within 48 hours after their first "stroke" and "accomplished in one day what ordinarily might take several weeks with conservative treatment," the physicians said in a recent issue of the *Journal of the American Medical Association.*

"Remarkable neurological recovery" had occurred in 27 patients by the end of the third week of treatment, Drs. Henry I. Russek, Staten Island, Allen S. Russek, New York, and Burton L. Zohman, Brooklyn, said.

Until now the disease has been viewed "at best, with expectancy, and, at worst, with defeatism," they said. There has been no acceptable treatment to hasten recovery from the acute phase of the attack or to reduce the extent of brain injury and its associated nervous system defects. The most common method of treatment has been one of waiting for the spontaneous return of function.

However, cortisone, through its effect on nerve cells of the brain, speeded the initial recovery and promoted a sense of well-being and interest in the patients. Cortisone apparently prevents the accumulation of excess fluid around the brain cells and protects the tissues from damage by the pressure of the fluid, the authors said.

In all but three of the patients the signs and symptoms of apoplexy were severe. Within 24 hours of giving the drug, 21 patients showed a striking relief of paralysis. In addition, there were unquestionable beneficial changes in mental, emotional, sensory, and psychomotor status.

The greatest effects were noted among those who were nearly unconscious, mentally depressed, or apathetic. "These symptoms were replaced overnight by keen alertness and sustained interest in personal progress," the authors said. Paralysis also was greatly reduced.

Active rehabilitation was begun after only one or two days of treatment. This early use of retraining methods "undoubtedly" played a part in the remarkable recovery in most cases, the physicians said.

In 27 patients at the end of three weeks only mild to moderate weakness in hand grip, mild foot drop, lower facial paralysis, and minor difficulties in speech and swallowing remained.

No serious side effects from the cortisone were noted in any of the patients, the authors said.

THE RECENT DEDICATION of the Treadway Division of the Devereux Schools in California, demonstrates another step forward in the expanding programs of education with therapy offered by The Devereux Foundation.

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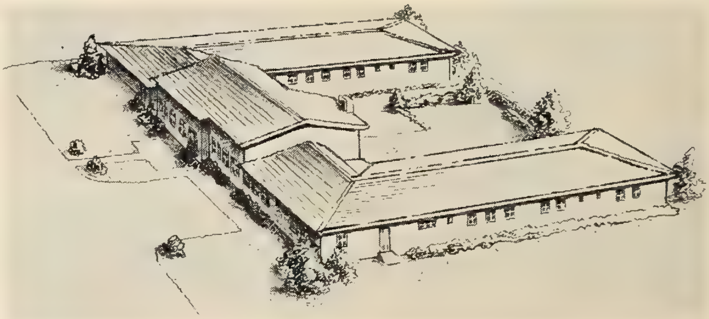

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SECOND REPORT

LECITHIN RESEARCH—AT THE BEND OF THE ROAD

The Therapeutic Usefulness of Lecithin – a natural phospholipid

Because lecithin, a natural, edible food constituent, is an excellent emulsifying agent its application in diseases characterized by disturbed fat absorption and metabolism is logical. Research has proved its value in facilitating intestinal absorption of fats and fat-soluble substances such as Vitamin A.[1-5] For this reason it suggests itself as worthy of trial in treating underweight and steatorrheal diseases (sprue, celiac disease, etc.).

Encouraging results were also achieved in the management of psoriasis, together with dietary and topical measures,[6] and in fatty livers.[7] In the treatment of diabetes, lecithin together with vitamin E has reduced insulin requirements in certain patients.[8] Research on its potentially useful role in the management of the more complicated forms of deranged lipid and cholesterol metabolism – as encountered in essential hyperlipemia, idiopathic familial hypercholesteremia, xanthomatosis, diabetes, etc. – is now being actively conducted.

An excellent source of lecithin is Glidden's "RG" Oil-free Soya Lecithin, a highly purified extract containing a minimum of 95% phospholipids. It is packed in a specially designed 8 oz container to maintain its purity and freshness and is available at your drugstore.

Dosage: Investigators of lecithin have used quantities from 7.5 to 30 grams daily in divided doses. (3 teaspoonfuls equal 7.5 grams.)

Administration: "RG" Lecithin is presented in palatable granules which may be taken plain, in milk, in orange juice or other citrus juices, or sprinkled on cereal.

Literature available on request.

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Arthritic Rehabilitation Program Outlined

The combined use of drugs and a physical rehabilitation program perhaps could "salvage from their invalidism" and return to "the dignity of living" many persons with active cases of chronic rheumatoid arthritis.

Results of such a program used for 38 patients at Goldwater Memorial Hospital, New York, were encouraging, according to Drs. Edward W. Lowman, Philip R. Lee, and Howard A. Rusk. They outlined the program in a recent issue of the *Journal of the American Medical Association.*

In the past rehabilitation of persons with active cases was restricted because of the danger of accelerating the disease process. Now cortisone and other drugs usually can control the spread of the disease, although they do sometimes produce undesirable side-effects.

After the disease process is controlled, the program to reteach "activities of daily living" is begun. The patient is taught to perform such activities as eating and dressing without help and with maximum efficiency. As he succeeds in performing one act he moves to another, always aiming at the highest efficiency within the limitations set by his crippled muscles and joints.

In some cases use of special mechanical devices, such as wheelchairs, crutches, or long-handled combs and forks, is taught.

The psychological outlook of the patient is "a major force" in determining his success, the doctors said. Feelings of hopelessness, frustration, and dependence often develop because of the length and pain of the disease. Psychologists help the patient in overcoming such feelings and in setting practical goals of achievement.

As the patient prepares to return home, social workers assist him in making any necessary adjustments, such as moving to a more conveniently arranged home. Job placement offers the most difficulties, because arthritics require relatively seden-

(Continued on Page 44)

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New Ampex 600-X is a recorder-reproducer of heart sounds with stethoscopic quality. Recorder and medical mike may be used at bedside in hospital or home. Playback ideal for classroom, conference, office or lab; any size listening group.

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Rauwolfia Derivative Relieves Skin Diseases

A derivative of Rauwolfia serpentina, the old "snakeroot remedy" from India, has been used successfully by two Michigan physicians to relieve "itchy" skin diseases, originating wholly or partly in the mind.

Thirty-six patients were treated with alseroxylon (Rauwiloid) for various chronic skin diseases either caused by or influenced by tension or psychological factors. Alseroxylon not only relieved the patients' itching, but also had a calming effect on them, the doctors said.

Relief from itching and corresponding improvement of the skin condition varied from 50 to 100 per cent in the patients. Only one showed no improvement.

All the patients experienced definite but varying degrees of relaxation, tranquilization and mild sedation. Most of the patients overlooked the feelings of sleepiness and mild fatigue in favor of the more welcome and prominent effects of lessened tension and a sense of well-being, the doctors said. Insomnia, which 10 patients had, was completely relieved in seven and lessened in three.

Because relief of itching may be related to the tranquilizing action of alseroxylon on the central nervous system, the drug is of "decided value" in treating skin diseases in which a psychological factor is prominent, the physicians concluded.

Rauwolfia serpentina has been used for hypertension and various mental illnesses.

Making the report in a recent issue of the *Archives of Dermatology*, published by the American Medical Association, were Dr. Richard J. Ferrara, Detroit, and Dr. Hermann Penkus, Monroe, Mich.

Arthritic Rehabilitation Program Outlined

(Continued from Page 40)

tary jobs, which are limited. Retraining, following vocational testing, is sometimes part of the rehabilitation.

In the Goldwater experiment, all 38 patients showed some improvement. Of the 18 patients who were severely disabled, 14 have been discharged from the hospital. Seven of these are totally self-sufficient and one is employed. Average disability in this group dropped from 60 to 29 per cent after two years of treatment.

All 20 of the less severely disabled patients have been discharged from the hospital. Fifteen are totally self-sufficient and seven of these have jobs. Disability dropped from 30 to 4 per cent in this group.

While the program is long and expensive, it may well pay for itself in the long run either by returning the patient to work or by releasing for employment a person who has been caring for him, the authors said.

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In the case of the Viso-Cardiette, such a background can be represented by the instruments chosen to accompany it in the Sanborn "family portrait" above. Although not possible to show them all here, Sanborn instruments of precision cover the complete range of cardiac recording for diagnosis and research, and also provide the basis for the measurement and recording of most of the other types of physiological phenomena.

Collectively, they represent the tangible application of the Sanborn experiences and skills that were gained over the past third of a century Unquestionably, such a background *does* make the Viso picture complete.

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Council Questions Necessity of Medical Care Controls

The Council on Industrial Health of the American Medical Association today questioned the effectiveness of certain controlling factors long thought necessary to keep down medical care losses in workmen's compensation programs.

A survey by the council of programs in 37 states, the District of Columbia, and Hawaii covering 10 years is reported in a recent issue of the *Journal of the American Medical Association.*

The controlling factors include the method of physician selection, limitations in time or amount of benefits, and schedules for physicians' fees.

The survey showed that there is no apparent relation between the existence of any one or a combination of the controlling factors and medical losses.

An accompanying Journal editorial pointed out that the physician providing care is selected by the employer in 33 areas. Yet in those areas where the employee may select the physician, medical losses "tend to fall below the median for all."

In 22 areas medical benefits are limited or a fee schedule has been set up. "Again there appears to

(Continued on Page 50)

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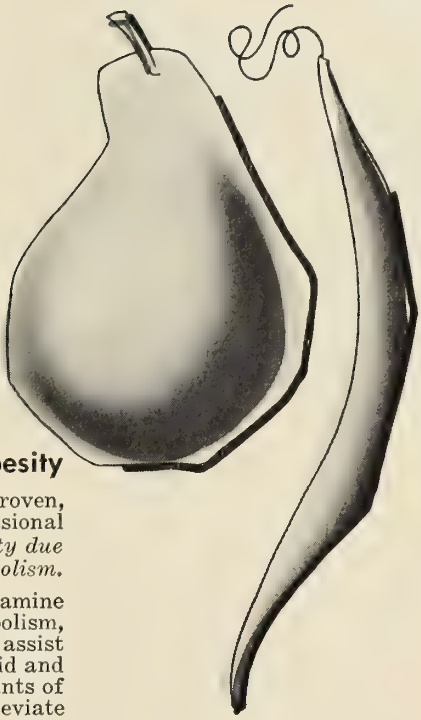

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	Atropine Sulphate	1/360 gr.	1/360 gr.	
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	Vitamin C	30 mg.		
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Born in Hamilton, Ohio, V.I.P. Lee Freiberg has been a "native" Californian for many years, except for a period during World War II, when as an aerial gunner and newsreel photographer, he flew forty combat missions in the South Pacific.

Lee, his wife Alice and their three children, Patricia, Sheryl and Charles, live in Anaheim, California, in their own brand new home. Holder of a Bachelor of Science degree from the University of Southern California, and with two years' experience as a chemist with a major research organization before joining Boyle & Company more than ten years ago, Lee is a full fledged V.I.P. . . . not in his own eyes, but in ours, and in the opinion of those members of the Orange County medical profession it has been his pleasure to meet.

Well aware of the value of time to a busy physician, Lee is also convinced of the importance of the information he has to offer. He therefore makes a point of being brief, clear and concise in giving you the information you want about Boyle & Company products. But if he should be fortunate enough to call upon you when you do have time for a friendly talk, you'll find him interested in community service (he's Grand Knight of the Anaheim Council of the Knights of Columbus)—well informed on football and boxing, and *rara avis*, a good listener.

Representative of the men chosen as Boyle & Company V.I.P.'s, Lee takes pains to be completely up to date on all developments in the pharmaceutical field. So when Lee, or the Boyle & Company representative in your area calls upon you, feel free to ask him about any of the Boyle & Company products shown on the succeeding pages. He . . . and Boyle & Company, will welcome your comments or suggestions.

BOYLE

"Blue Baby" Surgery Results Reported

A follow-up study of the first 100 children to undergo "blue baby" operations at Children's Memorial Hospital, Chicago, shows that only 14 children have died in an eight-year period.

Results were classified as good in 68 of the children and fair in 16. One child was in poor condition and one was unimproved.

Drs. Willis J. Potts, Stanley Gibson, Harvey White, and Robert A. Miller, Chicago, and Edward Berman, Indianapolis, reported the survey in a recent issue of the *Journal of the American Medical Association.*

Before the operation was devised in 1945, "blue babies" had little chance of survival. The operation provides a new and wider passage from the heart to the lungs, by-passing a constriction which prevents the blood from getting enough oxygen. The lack of oxygen is responsible for poor physical development and the blue color of the skin.

Of the children, 35 were between four and 36 months of age and 65 were between three and 16 years at the time of the operation. The operations were performed six to eight years ago.

There were nine hospital deaths—six in children between four and 36 months for a mortality rate of 17 per cent, and three in the older group for a rate of 4.6 per cent. "It is well recognized that the mortality in small children will be high, as they are operated upon at this age only because they cannot otherwise survive," the physicians said.

Three of the nine died of oxygen insufficiency. One death each was caused by lung collapse; blood poisoning and intracranial hemorrhage; cerebral hemorrhage; bacterial infection of artery walls and blood poisoning; a clot at the site of the operation and another clot which closed the aorta; and multiple anomalies of the heart and great vessels.

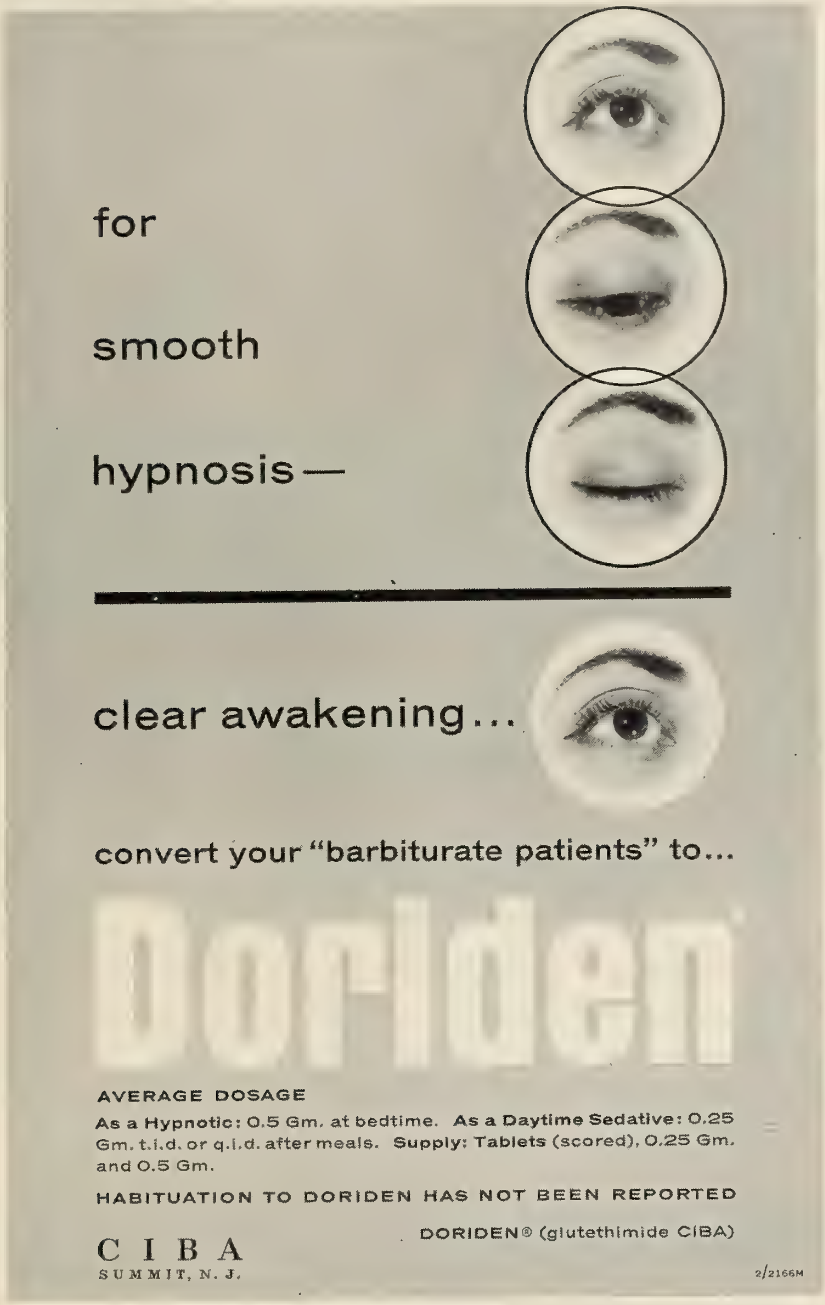
Five patients died after leaving the hospital. All had shown varying degrees of improvement. Causes of death were chronic pulmonary infection, pneumonia, acute rheumatic fever, brain abscess, and heart failure.

Only four patients required second operations.

Of the living group, 68 "live more or less normal lives; they walk to school, climb stairs, and chafe under restrictions placed upon them by their parents. Many, however, will admit under pointed questioning that they tire more easily than their schoolmates," the physicians said. These youngsters show little or no blueness at rest and very little after exertion.

Sixteen were considered moderately handicapped. They tire easily on moderate exertion. Some have persistent mild blueness when at rest, and all show blueness after exertion or when tired. They are

(Continued on Page 52)



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Council Questions Necessity of Medical Care Controls

(Continued from Page 46)

be no clear relation between minimal losses incurred and the existence of a 'control' measure," the editorial said.

The report said that Federal Bureau of Employees' Compensation statistics indicate that physicians' and surgeons' fees are not responsible for increased medical losses, as often has been charged.

The average distribution of medical care losses for the years 1941-1952 was physicians and surgeons, 31 per cent; hospitals, 60 per cent, and other services (nursing, appliances, drugs, etc.), 9 per cent.

The report noted that in 14 areas the amount spent for medical losses under workmen's compensation is less than the amount allocated for production (acquisition of business) costs.

There is evidence that traditional concepts may be in error and that more flexible medical care provisions "can improve the lot of disabled workers without insuperable economic burdens for anyone," the editorial concluded.

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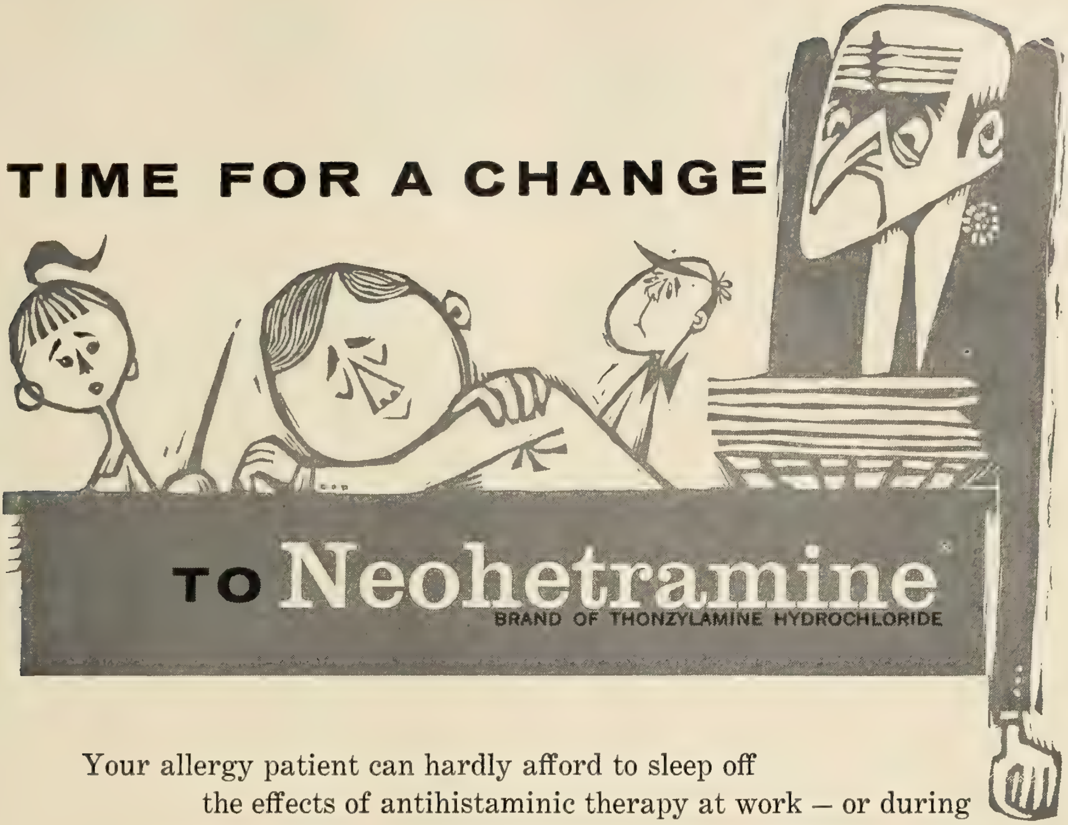

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"Blue Baby" Surgery Results Reported

(Continued from Page 48)

excused from all gymnasium work, the physicians said.

One patient was considered severely handicapped. She had made a good recovery after surgery, but overexerted and now has another heart disorder. One patient was considered unimproved. He had two operations, which were followed by only temporary improvement.

The evaluation included x-ray, electrocardiograph, and personal examination by at least five physicians. Those children who lived far from Chicago were reported on by parents and family physicians.

Physicians and Music

Physicians who generate their own music and often incite others to join them in resolute, well-meaning—and frequently high-grade—communion with the masters, are asked to write to Dorothy Gellert, secretary of the Doctors' Symphony, San Francisco Medical Society, 250 Masonic Avenue, San Francisco 18. She wants to get in touch with as many medical society symphonies and their officers as she can.

High Birth Rate Factor in Medical Care Expenditures

The American Medical Association recently announced that an exhaustive study of the economic position of medical care over the last 25 years revealed that a slight increase in the proportion of personal consumer expenditures spent for medical care is due largely to the tremendous upswing in the number of births.

Results of the first part of the two-part study were carried in a recent issue of the *Journal of the American Medical Association.*

A Journal editorial on the study said in part:

"The findings, reported by the A.M.A. Bureau of Medical Economic Research, emphasize the 'middle ground' position of the medical care 'industry' during that period, 1929-1953, when gross national product rose from 104 billion to 365 billion dollars and personal consumer expenditures rose from 79 billion to 230 billion dollars. While dollars expended for medical care followed the overall pattern of expansion, the bureau notes that since 1930 the percentage of personal consumer expenditures going for medical care varied only slightly, from 3.99 to 4.35. Since World War II, however, the percentage has risen at a more rapid rate, from 4.14 to 4.35.

"One factor that increased personal consumer expenditures for medical care, in dollars and as a

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percentage of the total, was the tremendous upswing since World War II in the number of births and the birth rate.

"The increased number of babies and young children has affected not only hospital and obstetric expenditures but has increased the demand for other medical services, since this youngest age group normally requires the most frequent medical attention. In the long run, of course, this imbalance will be corrected as today's toddlers become tomorrow's productive adults.

"Moreover, the reduction of the maternal mortality rate to a very low level has contributed to the high birth rate by reducing the mortal fear of childbearing almost to the vanishing point. The economic effect of the 1,200,000 increase in births from 1945 to 1953 has been obscured by statistics that do not show a division of medical expenditures into those for childbearing, disease, and accidents. Without such a breakdown, it is easy to misinterpret the increase in medical expenditures by ascribing it to a decline in the health of the American people or a disproportionate rise in medical care costs.

"The bureau study has isolated as a second factor responsible for the increase in expenditures the item 'medical care and hospitalization insurance.' These expenditures represent premiums less claims paid; this difference is primarily overhead cost. The rapid growth in voluntary health insurance has resulted in an increase of 779 million dollars in this insurance overhead item from 1929 to 1953; this amount represents one-ninth of the total 7,064 million dollar increase for all medical care items. The increase in overhead costs is, of course, a price that must be paid for the rapid extension of voluntary health insurance.

"Turning from expenditures to prices, the bureau notes that the index for medical care and drug prices, as indicated by the U. S. Bureau of Labor Statistics' Consumer Price Index (1935-1939=100), stood at 173.9 in 1954—well below the 191.9 for the entire index. The item indexes for physicians' and dentists' fees were still lower—160.3 and 174.5. The only component of the total medical care and drug index that showed a marked rise was hospital room rates, which was 322.1 in 1954; if the upward effect of this component were eliminated, the overall medical care and drug index would be still lower. . . .

"The average income of physicians rose at almost exactly the same rate as the average earnings of all wage and salary workers over the period. From 1929 to 1949 the percentage rise was 108 compared to 109; and for 1949 to 1951, 13 compared to 15. Estimates indicate no change in this trend since 1951. The incomes of physicians and their patients continue to keep pace.

(Continued on Page 62)

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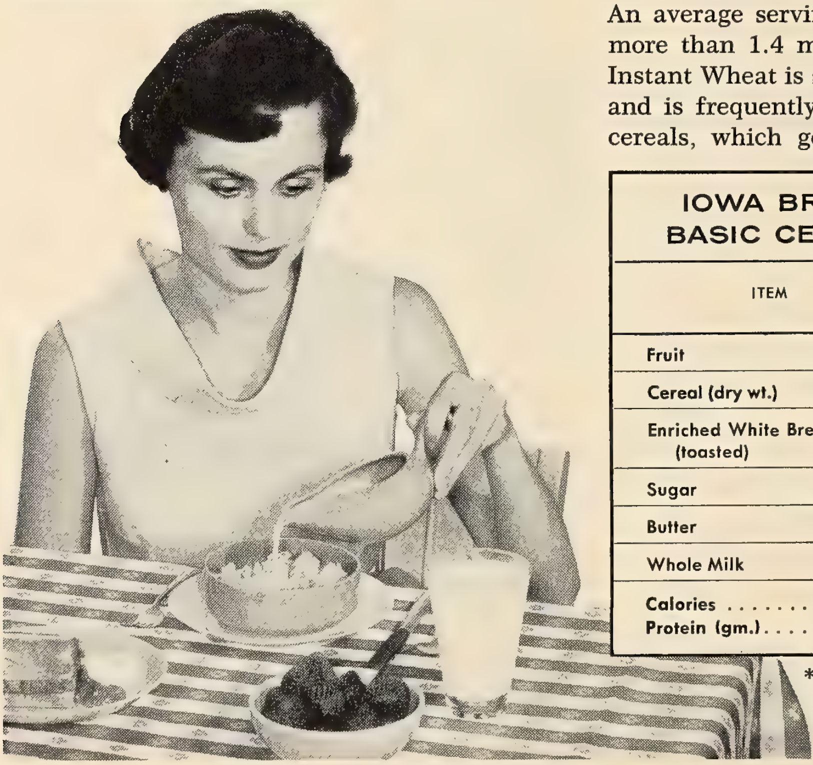
In encouraging better breakfasts, the physician may well include the basic cereal breakfast for variety and economy. In such breakfasts, Carnation Instant Wheat provides definite advantages compared to ready-to-eat cereals or a "toast and coffee" breakfast.



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BASIC CEREAL BREAKFAST

ITEM	WEIGHT OF SERVING gm.	PROTEIN gm.	ENERGY calories
Fruit	77	0.4	68
Cereal (dry wt.)	30	3.2	110
Enriched White Bread (toasted)	50	4.2	130
Sugar	10	0.7	40
Butter	10	0.1	73
Whole Milk	480	16.9	330

Calories	750	Fat (gm.)	28
Protein (gm.)	25	Carbohydrate	100

*Literature available upon request.
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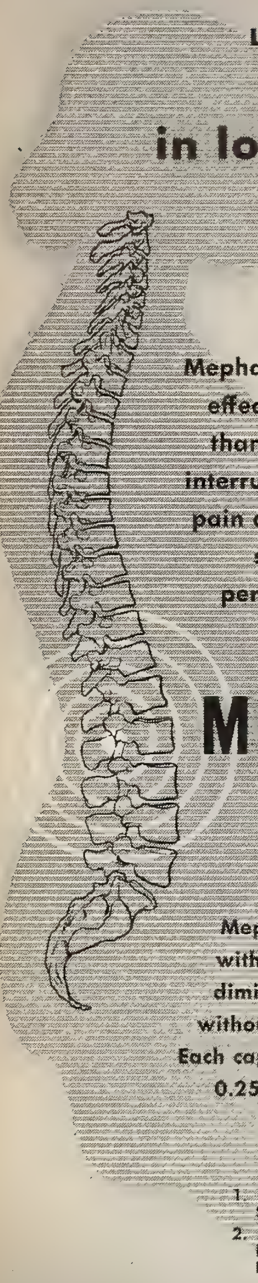

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1. Bender, T. J. Jr.: at Mtg. Med. Assoc. St. Alabama, Mobile, 1954.
2. Jessup, R., Murray, R. J. and Rossi, A.: Amer. Pract. & Dig. of Treatment, 5:792, 1954.

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"New Practice" Grants Offered Physicians

Unsecured 10-year loans of up to $25,000 each will be offered to physicians seeking to establish practices but unable to get full local financing, Sears-Roebuck Foundation has announced.

At least one loan in each of five regions across the country will be given in 1955 under an original $125,000 foundation grant.

The plan of assistance is being launched by the foundation in cooperation with the American Medical Association as "an investment in individual incentive." The foundation called it a "modest and practical plan" to "further improve America's leadership in providing medical attention."

"This is a plan aimed at creating the financial and managerial conditions best designed to satisfy the medical needs of the American people, the professional and economic needs of the American physician, and the principles of free, voluntary and unregimented practice of medicine in which the physician is beholden to no 'boss' other than his professional ethics and his professional competence," the foundation said.

The plan is designed to be self-expanding, with all repayments to be used for further grants. Thus, every grant made will help to establish still another medical practice where needed.

The foundation said young physicians often lack two essentials, capital and business "know-how." The plan is intended to fill this gap with long-term, low-cost assistance. Grantees will make tax-free contributions to the foundation instead of paying interest. These contributions and the repaid loans will be used to establish more medical practice units. Several features are included to encourage early repayment, thus making more grants possible.

Applications for grants will be screened by a medical advisory board which has been appointed from nominations by the A.M.A. Board of Trustees. They will be considered on the basis of need for assistance, expected use of it, and effort and thought by the applicant in the understanding and solution of his own problems.

Each applicant must provide information about the town or area where he seeks to practice, indicating the need for medical care, medical resources already available, the possible reasons for the success of a new medical practice, and benefits expected for the community. He also must outline his plan of action, his previous efforts at local financing, and evidence of his initiative. An important consideration in choosing the first five participants will be their ability to serve as their regional "models."

Physician placement offices of state medical societies will play a major role in getting the program started. The foundation said the plan is experimental and its continuation after 1955 will depend on

(Continued on Page 62)

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He sees a golden-honey treat. Tastes lemon candy. Yet each delicious teaspoonful of VI-DAYLIN gives him a full day's serving of *eight* essential vitamins (including 3 mcg. of body-building B_{12}). And there's no pre-mixing, no refrigeration. Mother just pours an easy spoonful once a day—or mixes VI-DAYLIN in milk, cereals or juices. Sold in 90-cc., 8-fluidounce and thrifty one-pint bottles.

Abbott

and for infants... **VI-DAYLIN DROPS**

Each 5-cc. teaspoonful of VI-DAYLIN contains:

Vitamin A	3000 U.S.P. units
Vitamin D	800 U.S.P. units
Thiamine Hydrochloride	1.5 mg.
Riboflavin	1.2 mg.
Pyridoxine Hydrochloride	0.5 mg.
Ascorbic Acid	40 mg.
Vitamin B_{12}	3 mcg.
Nicotinamide	10 mg.

510210

High Birth Rate Factor in Medical Care Expenditures

(Continued from Page 53)

"The various providers of services and commodities in the medical care 'industry' can well be proud of a quarter century record that included great medical advances—the increased life expectancy at birth, the declines in infant and maternal mortality, and the development of new drugs and treatments—while little change occurred in the industry's relative economic position. Possibly this is our most efficient industry!"

"New Practice" Grants Offered Physicians

(Continued from Page 56)

the reception and support given it by the medical profession. However, it said it is expected that annual contributions will continue for some years.

This plan was formulated by the recently created medical advisory board of the foundation. The board is headed by Dr. F. J. L. Blasingame, Wharton, Texas, chairman, and Dr. Edwin S. Hamilton, Kankakee, Ill., vice-chairman who, together with Dr. James R. McVay, Kansas City, Mo., are members at large. Regional members are Drs. Samuel P. Newman, Denver, Midwest; James Z. Appel, Lancaster, Pa., East; David Henry Poer, Atlanta, South; Eugene F. Hoffman, Los Angeles, Pacific Coast; Robert D. Moreton, Fort Worth, Southwest; and Drs. J. A. Bargen, Rochester, Minn.; Lawrence R. Dame, Greenfield, Mass.; J. P. Culpepper, Hattiesburg, Miss.; Raymond M. McKeown, Marshfield, Ore.; and Alfred R. Sugg, Ada, Okla. Ex-officio members are Drs. Elmer Hess, American Medical Association president, Erie, Pa.; Gunnar Gundersen, La Crosse, Wis., chairman of the board of trustees, and Dwight H. Murray, Napa, president-elect.

Applications must be sent to the office of the region in which the proposed medical practice is to be established, the foundation said. They should be addressed to the Director, Sears-Roebuck Board, at these locations:

Pacific Coast region—2650 Olympia Blvd., Los Angeles 54, Calif.; Southwestern—1409 South Lamar St., Dallas 2, Texas.; Midwest—8 East Congress St., Chicago 5, Ill.; South—675 Ponce de Leon Ave., Atlanta; East—4640 Roosevelt Blvd., Philadelphia 32, Pa.

BUY UNITED STATES SAVINGS BONDS

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Message. Mrs. Curtis called - is still tormented by itching. Gave her your message to use Calmitol for quick, sure relief. Assured her that Calmitol won't aggravate or sensitize.

Time 3:30 P.M. R.G.

TELEPHONED ☑ PLEASE CALL ☐ WILL CALL AGAIN ☐

1½ oz. tubes
and 1 lb. jars

the non-sensitizing antipruritic

Thos. Leeming & Co. Inc. 155 East 44th Street, New York 17, N.Y.

Each ounce contains: Hyoscyamine oleate (equivalent to 0.028 mg. hyoscyamine alkaloid), 0.055 mg.; Alcohol, 1.4 cc.; Camphor, 0.16 gm.; Ether, 0.5 cc.; Chloroform, 0.19 cc.; Chloral hydrate, 0.13 gm.; Menthol, 0.17 gm.; in a suitable ointment base.

California
MEDICINE

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Civil Defense

The Plans for Medical Organization and Action in California

JUSTIN J. STEIN, *M.D.*, Los Angeles, W. DALTON DAVIS, *M.D.*, and FRANK L. COLE, *M.D.*, Berkeley

THE PURPOSE of this report is to outline the organization for medical Civil Defense in California, to list some of the accomplishments to date, and to reemphasize the great need for medical leadership in furthering civil defense.

An efficient, well supported civil defense organization is an absolute necessity for the survival of this nation from an all-out enemy attack. In past wars the enemy has never seriously struck at our shores or our cities. In future wars the enemy will be successful, in varying degrees, in bombing our cities and industries just as we will be in striking his cities and population centers. Civilians will no longer be in the protected or "back of the front lines." There will be no front lines. The people must be psychologically prepared and trained to withstand enemy attacks to our mainland and still have the will to win.

As to the necessity for having a civil defense organization, one merely needs to refer to the lessons gained by the Germans, English, Japanese and other nations during World War II.

Civil Defense requires the complete integration of all phases of industry and agriculture and, in particular, the help of every individual in the program. Our greatest asset is the people and they must be protected at all costs.

Briefly it can safely be stated that in the event of any major war:

1. California will present many high-priority targets.
2. The United States is highly vulnerable to attack by atomic and thermonuclear weapons, and by biological, chemical and conventional weapons.
3. Hundreds of thousands of casualties requiring treatment will result from an attack in which atomic and thermonuclear weapons are used.
4. The ability of this nation to survive without an excellent civil defense organization is open to question.
5. The industrial areas and centers of heavy concentration of population will probably represent major initial targets.
6. Regardless of the amount of money and resources available, the proper planning, recruiting, training and equipping of the civilian population take many months of time. It is most fortunate that we have already had five years in which to prepare. Much, however, remains to be done.
7. Every individual must have a civil defense assignment, must know first aid, the precautions to be taken before, during and after an attack, and have some basic practical knowledge of the effects and dangers of atomic and thermonuclear warfare.

Chairman, Committee on Military Affairs and Civil Defense, California Medical Association (Stein); Medical Consultant, Medical and Health Services Division, Office of Civil Defense, State of California (Davis); and Chief, Medical and Health Services Division, Office of Civil Defense, State of California (Cole).

CHART 1

ANTICIPATED CASUALTIES (WHITNEY)
UNITED STATES
↓
70 CRITICAL TARGET AREAS
↓
13.5 MILLION LIVING AND DEAD CASUALTIES IMMEDIATELY AFTER AN ATTACK
↓
8.2 MILLION LIVING CASUALTIES REMAINING AFTER FIRST DAY
↓
5 MILLION LIVING CASUALTIES REMAINING DURING THE THREE WEEK POST ATTACK PERIOD

THE PROBLEM

Whitney[1] has clearly outlined the enormous task which lies before us in his article on the "Federal Aspects of Civil Defense." He has stated that there are 70 critical target areas in the United States and that if these targets are all attacked simultaneously that there will be 13.5 million living and dead immediately afterward, with 8.2 million living casualties after the first day. There will then be the problem of treatment and management of five million casualties during the first three weeks of the post-attack period, not including the customary number of sick and injured (Charts 1, 2 and 3).

Upon recognition that California with its rapidly growing population and increasing number of industries presented many excellent critical targets to the enemy, concerted efforts were begun in July of 1950 to develop a civil defense program for the state. A civil defense law was enacted and the money was appropriated for this purpose. State Department of Public Health personnel, members of the California Medical Association and of numerous other organizations worked closely together.

It was quickly realized that, with many targets under attack at one time, few medical supplies and little equipment could be counted upon for many hours after the attack. It would be necessary to train as many individuals as possible and at least one member of each family in first aid. Estimates would have to be made of hospital facilities and of the number of trained professional personnel and auxiliary professional groups that would be available. Lists would have to be made recording the schools and other structures that could be used as improvised hospitals, the amount of transportation available and medical supplies which could be obtained promptly. These are but a few of the many factors which would have to be determined well in advance of any major disaster.

THE OVERALL MEDICAL PLAN

With the foregoing in mind, the present Civil Defense Organization was provided for in legislation affecting civil defense and disaster as passed by the 1950 legislature. Several changes have been made since that time.

CHART 2.—Status of Federal Civil Defense Administration (FCDA) Disaster Plans

FCDA (WHITNEY)
↓
U.S. DIVIDED INTO 7 REGIONS
↓
20 FCDA WAREHOUSES FOR SUPPLIES
↓
MEDICAL AND SURGICAL SUPPLIES FOR 2,500,000 CASUALTIES FOR 3 WEEKS
↓
DURING 1956 MEDICAL & SURGICAL SUPPLIES TO BE ADEQUATE FOR 3,500,000 CASUALTIES FOR 3 WEEKS

This act provides for the general reorganization of the Civil Defense Agency. It contains suggested city and county ordinances relating to civil defense and disaster. It outlines master mutual aid agreements between political subdivisions in the state, as well as between states. Many other procedures peculiar to civil defense and major disaster are included in this act.

The state Civil Defense Organization[2] is set up as follows: The Governor is the overall chief and upon declaration by him of an extreme emergency, he assumes control. The Director of Civil Defense becomes his executive officer for civil defense and disaster. In 1955 a new law was enacted which provides that a state of extreme emergency will go into effect automatically without a proclamation "whenever this state is attacked by an enemy of the United States by the use of atomic weapons or upon the issuance by the Western Air Defense Forces of an alert warning indicating that an enemy attack is probable." Under the previous law the State Director of Civil Defense could proclaim the existence of a state of extreme emergency only when the Governor was "inaccessible" and "when conditions exist within any region or regions of the state which warrant such action." The overall plans for the organization of civil defense both during and prior to a state of extreme emergency are shown on Charts 4 and 5.

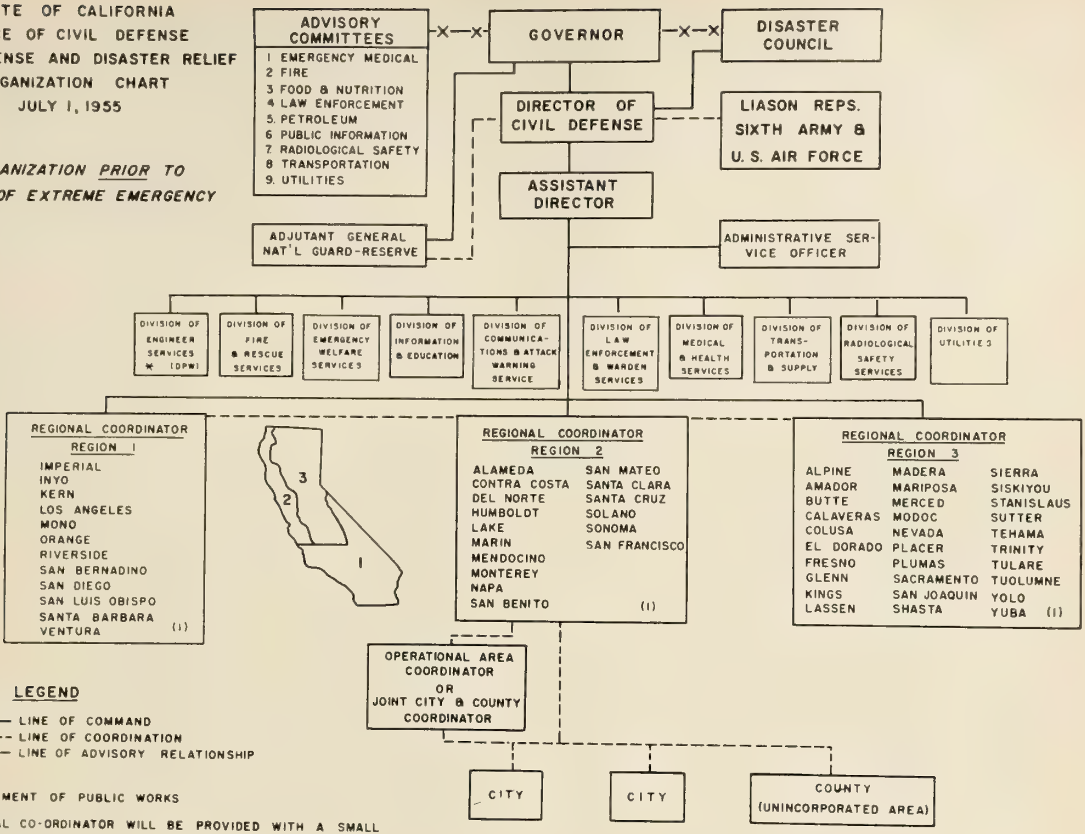
CHART 3.—Federal Civil Defense Administration (FCDA) Improvised Hospital Units

FCDA - IMPROVISED HOSPITAL (MASH) UNITS
↓
NEED 6000 FOR U.S.
↓
930 UNITS ORDERED
↓
68 UNITS TO STATES TO DATE (20 FOR CALIFORNIA)

CHART 4

STATE OF CALIFORNIA
OFFICE OF CIVIL DEFENSE
CIVIL DEFENSE AND DISASTER RELIEF
ORGANIZATION CHART
JULY 1, 1955

ORGANIZATION PRIOR TO
STATE OF EXTREME EMERGENCY


ADVISORY COMMITTEES
1 EMERGENCY MEDICAL
2 FIRE
3 FOOD & NUTRITION
4 LAW ENFORCEMENT
5 PETROLEUM
6 PUBLIC INFORMATION
7 RADIOLOGICAL SAFETY
8 TRANSPORTATION
9 UTILITIES
GOVERNOR
DISASTER COUNCIL
DIRECTOR OF CIVIL DEFENSE
LIASON REPS. SIXTH ARMY & U. S. AIR FORCE
ASSISTANT DIRECTOR
ADJUTANT GENERAL NAT'L GUARD-RESERVE
ADMINISTRATIVE SERVICE OFFICER
DIVISION OF ENGINEER SERVICES * (DPW)
DIVISION OF FIRE & RESCUE SERVICES
DIVISION OF EMERGENCY WELFARE SERVICES
DIVISION OF INFORMATION & EDUCATION
DIVISION OF COMMUNICATIONS & ATTACK WARNING SERVICE
DIVISION OF LAW ENFORCEMENT & WARDEN SERVICES
DIVISION OF MEDICAL & HEALTH SERVICES
DIVISION OF TRANSPORTATION & SUPPLY
DIVISION OF RADIOLOGICAL SAFETY SERVICES
DIVISION OF UTILITIES
REGIONAL COORDINATOR REGION 1
IMPERIAL
INYO
KERN
LOS ANGELES
MONO
ORANGE
RIVERSIDE
SAN BERNADINO
SAN DIEGO
SAN LUIS OBISPO
SANTA BARBARA
VENTURA
(1)
3
2
1
REGIONAL COORDINATOR REGION 2
ALAMEDA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
SAN FRANCISCO
(1)
REGIONAL COORDINATOR REGION 3
ALPINE
AMADOR
BUTTE
CALAVERAS
COLUSA
EL DORADO
FRESNO
GLENN
KINGS
LASSEN
MADERA
MARIPOSA
MERCED
MODOC
NEVADA
PLACER
PLUMAS
SACRAMENTO
SAN JOAQUIN
SHASTA
SIERRA
SISKIYOU
STANISLAUS
SUTTER
TEHAMA
TRINITY
TULARE
TUOLUMNE
YOLO
YUBA
(1)
OPERATIONAL AREA COORDINATOR OR JOINT CITY & COUNTY COORDINATOR
CITY
CITY
COUNTY (UNINCORPORATED AREA)

LEGEND
———— LINE OF COMMAND
------- LINE OF COORDINATION
—X—X— LINE OF ADVISORY RELATIONSHIP

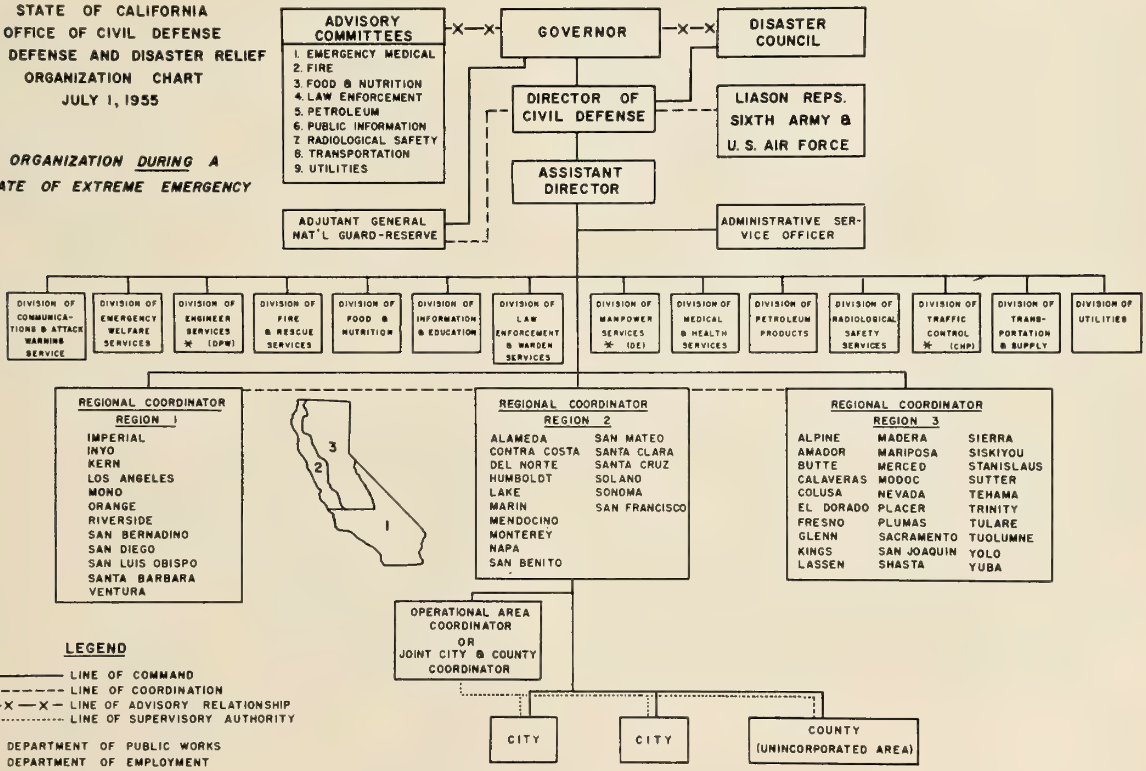
* DEPARTMENT OF PUBLIC WORKS

(1) REGIONAL CO-ORDINATOR WILL BE PROVIDED WITH A SMALL NUCLEUS OF STAFF BY THE STATE OFFICE OF CIVIL DEFENSE, SUPPLEMENTED BY SPECIALISTS AS NEEDED FROM TIME TO TIME THE SERVICES STAFF WILL BE FORMED FOR BOTH PLANNING AND OPERATIONS BY REPRESENTATIVES CHOSEN BY THOSE SERVICES FROM THE REGION AT LARGE - THIS REPRESENTATIVE MAY BE REPRESENTED AT THE STATE REGION BY A DESIGNATED ALTERNATE

CHART 5

STATE OF CALIFORNIA
OFFICE OF CIVIL DEFENSE
CIVIL DEFENSE AND DISASTER RELIEF
ORGANIZATION CHART
JULY 1, 1955

ORGANIZATION DURING A
STATE OF EXTREME EMERGENCY

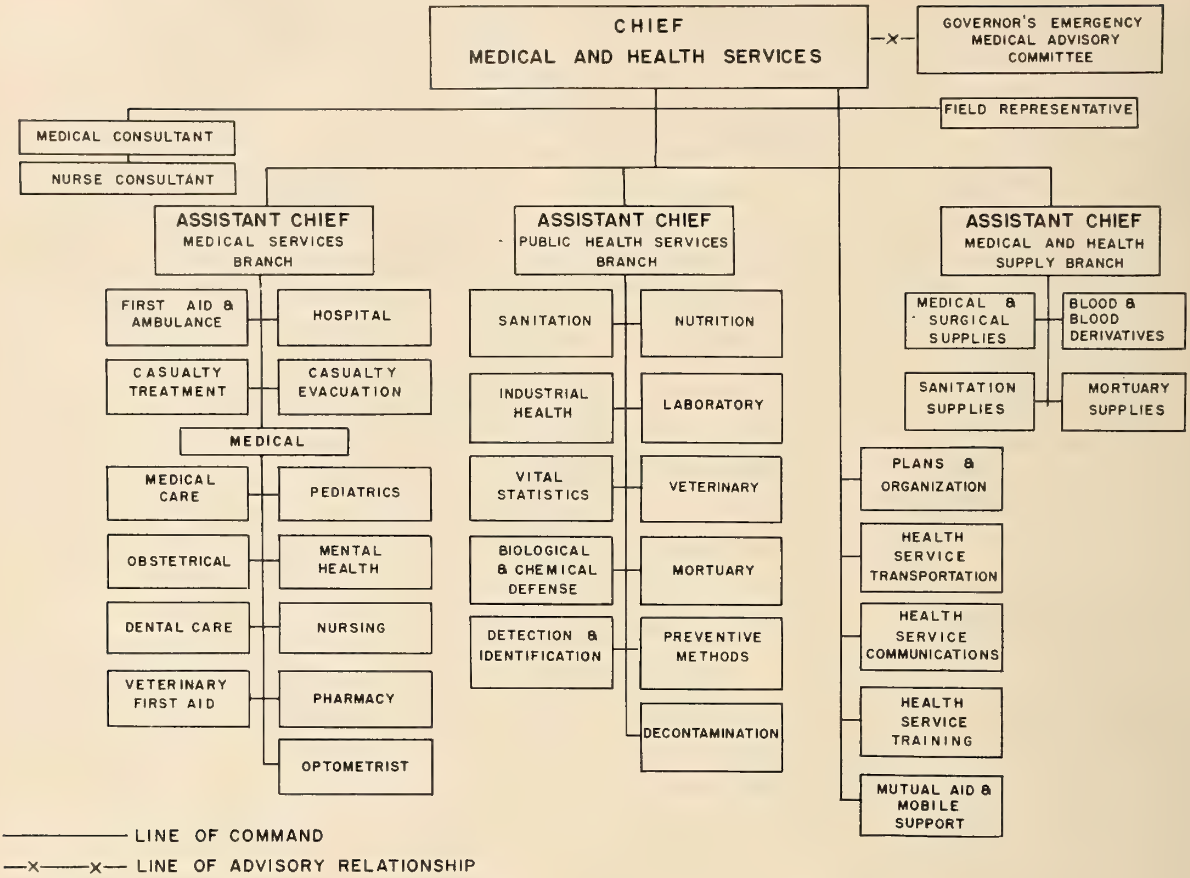

ADVISORY COMMITTEES
1. EMERGENCY MEDICAL
2. FIRE
3. FOOD & NUTRITION
4. LAW ENFORCEMENT
5. PETROLEUM
6. PUBLIC INFORMATION
7. RADIOLOGICAL SAFETY
8. TRANSPORTATION
9. UTILITIES
GOVERNOR
DISASTER COUNCIL
DIRECTOR OF CIVIL DEFENSE
LIASON REPS. SIXTH ARMY & U. S. AIR FORCE
ASSISTANT DIRECTOR
ADJUTANT GENERAL NAT'L GUARD-RESERVE
ADMINISTRATIVE SERVICE OFFICER
DIVISION OF COMMUNICATIONS & ATTACK WARNING SERVICE
DIVISION OF EMERGENCY WELFARE SERVICES
DIVISION OF ENGINEER SERVICES * (DPW)
DIVISION OF FIRE & RESCUE SERVICES
DIVISION OF FOOD & NUTRITION
DIVISION OF INFORMATION & EDUCATION
DIVISION OF LAW ENFORCEMENT & WARDEN SERVICES
DIVISION OF MANPOWER SERVICES * (DE)
DIVISION OF MEDICAL & HEALTH SERVICES
DIVISION OF PETROLEUM PRODUCTS
DIVISION OF RADIOLOGICAL SAFETY SERVICES
DIVISION OF TRAFFIC CONTROL * (CHP)
DIVISION OF TRANSPORTATION & SUPPLY
DIVISION OF UTILITIES
REGIONAL COORDINATOR REGION 1
IMPERIAL
INYO
KERN
LOS ANGELES
MONO
ORANGE
RIVERSIDE
SAN BERNADINO
SAN DIEGO
SAN LUIS OBISPO
SANTA BARBARA
VENTURA
3
2
1
REGIONAL COORDINATOR REGION 2
ALAMEDA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
SAN FRANCISCO
REGIONAL COORDINATOR REGION 3
ALPINE
AMADOR
BUTTE
CALAVERAS
COLUSA
EL DORADO
FRESNO
GLENN
KINGS
LASSEN
MADERA
MARIPOSA
MERCED
MODOC
NEVADA
PLACER
PLUMAS
SACRAMENTO
SAN JOAQUIN
SHASTA
SIERRA
SISKIYOU
STANISLAUS
SUTTER
TEHAMA
TRINITY
TULARE
TUOLUMNE
YOLO
YUBA
OPERATIONAL AREA COORDINATOR OR JOINT CITY & COUNTY COORDINATOR
CITY
CITY
COUNTY (UNINCORPORATED AREA)

LEGEND
———— LINE OF COMMAND
------- LINE OF COORDINATION
—X—X— LINE OF ADVISORY RELATIONSHIP
.... LINE OF SUPERVISORY AUTHORITY

* DEPARTMENT OF PUBLIC WORKS
DEPARTMENT OF EMPLOYMENT
CALIFORNIA HIGHWAY PATROL

CHART 6

STATE OF CALIFORNIA OFFICE OF CIVIL DEFENSE
FUNCTIONS OF MEDICAL AND HEALTH SERVICES DIVISION


CHIEF
MEDICAL AND HEALTH SERVICES
—x—
GOVERNOR'S EMERGENCY MEDICAL ADVISORY COMMITTEE
FIELD REPRESENTATIVE
MEDICAL CONSULTANT
NURSE CONSULTANT
ASSISTANT CHIEF
MEDICAL SERVICES BRANCH
FIRST AID & AMBULANCE
HOSPITAL
CASUALTY TREATMENT
CASUALTY EVACUATION
MEDICAL
MEDICAL CARE
PEDIATRICS
OBSTETRICAL
MENTAL HEALTH
DENTAL CARE
NURSING
VETERINARY FIRST AID
PHARMACY
OPTOMETRIST
ASSISTANT CHIEF
PUBLIC HEALTH SERVICES BRANCH
SANITATION
NUTRITION
INDUSTRIAL HEALTH
LABORATORY
VITAL STATISTICS
VETERINARY
BIOLOGICAL & CHEMICAL DEFENSE
MORTUARY
DETECTION & IDENTIFICATION
PREVENTIVE METHODS
DECONTAMINATION
ASSISTANT CHIEF
MEDICAL AND HEALTH SUPPLY BRANCH
MEDICAL & SURGICAL SUPPLIES
BLOOD & BLOOD DERIVATIVES
SANITATION SUPPLIES
MORTUARY SUPPLIES
PLANS & ORGANIZATION
HEALTH SERVICE TRANSPORTATION
HEALTH SERVICE COMMUNICATIONS
HEALTH SERVICE TRAINING
MUTUAL AID & MOBILE SUPPORT
LINE OF COMMAND
—x——x— LINE OF ADVISORY RELATIONSHIP

Under the law the Director of the State Department of Public Health is charged with the responsibility for medical care for civilian casualties occurring within the state due to enemy action or any other extreme emergency. He has authority to use the facilities of the entire health department. In time of extreme emergency he becomes the head of the Medical and Health Services, under the Director of Civil Defense. The present chief of the Medical and Health Services becomes his executive officer or assistant.

The medical aspects of the state Civil Defense Organization are illustrated in Chart 6. The Medical and Health Service Organization[3] is subdivided in accord with its many functions. The Governor's Emergency Medical Advisory Committee works very closely in an advisory capacity with the Medical and Health Service Organization.

The Medical and Health Service Organization on the state level is a planning organization. The local jurisdictions are the operational areas. Recruitment, assignment and training can most successfully be accomplished in the local areas (Chart 6).

THE C.M.A. CIVIL DEFENSE COMMITTEE

In 1950 the California Medical Association's committee on civil defense was called the Committee on Emergency Medical Service. The name was later changed to the Committee on Military Affairs and Civil Defense. It was felt that civil defense and medical military affairs were closely related and could best be combined in this committee.

The Governor appointed the chairman of the C.M.A. Committee on Emergency Medical Services to the Governor's Emergency Medical Advisory Committee as its chairman, in 1950. From 1950 to the present time the members of the Committee on Military Affairs and Civil Defense of the California Medical Association have been very active in working with the Governor's Emergency Medical Advisory Committee and with the Medical Health Services personnel of the California State Health Department. The chairman and one other physician on the Governor's Emergency Medical Advisory Committee are also members of the C.M.A. Committee on Military Affairs and Civil Defense.

During the past five years the C.M.A. committee and the Governor's Emergency Medical Advisory Committee have helped accomplish the following:

1. Formulate an overall medical policy and organization.

2. Prepare casualty estimates for the target areas on the basis of both the 20 kiloton atomic bomb and the 20 megaton thermonuclear bomb.

3. Prepare regional annexes and plans for a coordinated medical and health service throughout the state.

4. Prepare estimates of costs of medical supplies and equipment.

5. Determine the number of first aid stations for the state (683) (Chart 7).

6. Determine kinds and quantity of supplies for the first aid stations.

7. Determine the number of first aid stations for each region.

8. Prepare requisitions for supplies and correlate through the supply division of civil defense and the state purchasing division.

9. Determine the number and location of improvised hospital units (Chart 7).

10. Revise all civil defense plans after the development and detonation of the thermonuclear bomb.

11. Help the State Office of Civil Defense prepare civil defense manuals, some of which are as follows:

Manual for Blood Program, State of California, Office of Civil Defense, Medical-Health Services Division (March 1953).

Manual for the Emergency Field Treatment of Casualties, State of California, Office of Civil Defense, Medical-Health Services Division (November 1952).

Manual for Existing, Auxiliary and Improvised Hospitals, State of California, Office of Civil Defense, Medical-Health Services Division (March 1952).

Manual for Organization, Training and Operation of First-Aid Stations, State of California, Office of Civil Defense, Medical-Health Services Division (March 1953).

State of California, Department of Public Health and Disaster Plan.

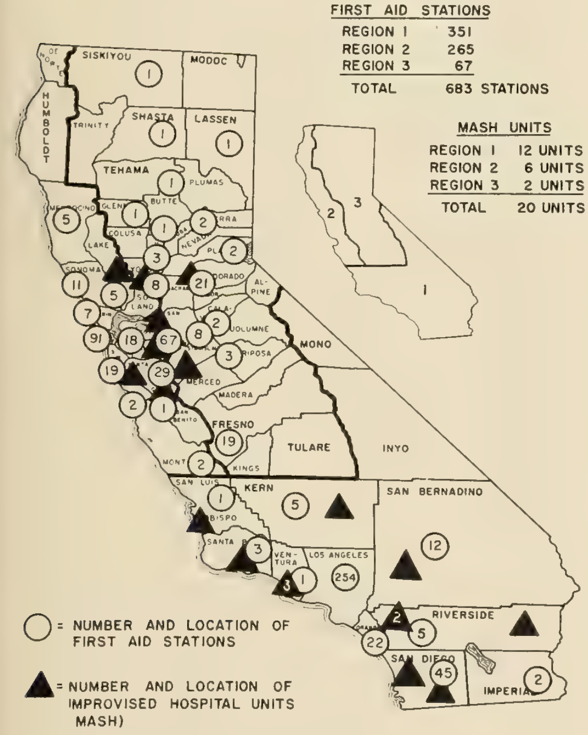
Recommendations for Civil Defense Relative to Radiological Safety, by Andrew H. Dowdy and Associates.

Manual for Operating Procedure Radiological Services Section at the Control Center, State Office of Civil Defense (Rev. January 1954).

Manual for Radiological Monitoring. Instructor's Guide. State of California, Office of Civil Defense, Division of Radiological Safety Services, (December 1953).

CHART 7

DISTRIBUTION OF STATE CIVIL DEFENSE FIRST AID STATION SUPPLIES AND IMPROVISED HOSPITAL UNITS


FIRST AID STATIONS
REGION 1 351
REGION 2 265
REGION 3 67
TOTAL 683 STATIONS
MASH UNITS
REGION 1 12 UNITS
REGION 2 6 UNITS
REGION 3 2 UNITS
TOTAL 20 UNITS
SISKIYOU
MODOC
HUMBOLDT
TRINITY
SHASTA
LASSEN
TEHAMA
PLUMAS
GLENN
BUTTE
COLUSA
LAKE
SONOMA
TUOLUMNE
MONO
MARIPOSA
MERCED
MADERA
FRESNO
TULARE
INYO
KINGS
KERN
SAN BERNADINO
LOS ANGELES
VENTURA
RIVERSIDE
SAN DIEGO
IMPERIAL
○ = NUMBER AND LOCATION OF FIRST AID STATIONS
▲ = NUMBER AND LOCATION OF IMPROVISED HOSPITAL UNITS MASH)

12. Procure and unitize training units for aid stations and distribute them to the various regions.

13. Hold meetings and courses on Civil Defense throughout the state. (Many have been sponsored and attended.)

14. Hold courses in disaster nursing for nurses, including information regarding atomic warfare. (Some 5,000 nurses have had the courses.)

Many other problems have been studied and effective measures taken.

STATE PLANS

Both the Governor's Emergency Medical Advisory Committee and the Committee on Military Affairs and Civil Defense for the California Medical Association will continue to develop the medical supply program. All medical civilian defense plans will be continually under scrutiny and they will be changed to conform with the development of new weapons. Further study and plans will be made with regard to emergency water supplies, sanitation procedures, food and milk inspection for the general population, mass care centers, and for medical care at assembly points for people during a major disaster. Further plans and procedures will be developed for handling atomic and hydrogen bomb casualties. Also studies will be continued with regard to mutual aid between the regions and between the neighboring states. Full cooperation will be given to all other civil defense agencies and plans will always be kept flexible to cope with changing trends. The above are but a few of the many problems which will be explored during the coming months.

MEDICAL SUPPLIES

Early in the planning it was felt that it was of utmost importance to find out how much medical equipment and supplies would be needed and obtain them as quickly as possible so the medical profession would have something to work with.

There is nothing so frustrating to trained physicians as to be able to do something but to have nothing to work with. A complete report on the amount of money expended, both state and federal matching funds, and the items purchased is given as follows:

Fifty complete sanitation units have been purchased by the State Office of Civil Defense and they have been distributed to local health departments (Chart 8). The 50 hypochlorinators and 111 hand pumps are small in number but they will be indispensable in a major disaster.

WHAT CAN THE MEDICAL PROFESSION DO?

Every county medical group of any appreciable size—and smaller county medical groups combined with other small groups or with adjacent larger societies—should appoint a committee for civil defense in case of a major disaster. Some of the things that should be accomplished immediately by these groups are:

1. Establish a working liaison with all other civil defense agencies.

2. Provide for the procurement and assignment of medical personnel. The civilian needs in the next war will probably be greater than those of the military. In light of the fact that the utilization of medical personnel by the armed forces during World War II was very inefficient in numerous instances, the organized medical profession should at once crystallize its opinions regarding the assignment and procurement of physicians by the armed forces and make its recommendations known to the proper authorities. The organized medical profession must take the initiative in all medical civil defense problems. Every member of the medical profession should be given a definite civil defense assignment.

3. Development of disaster plans by all hospitals in the state. The plans should include the following:

Designation of a disaster committee to be in charge of overall planning.

Designation of a director and assistant directors.

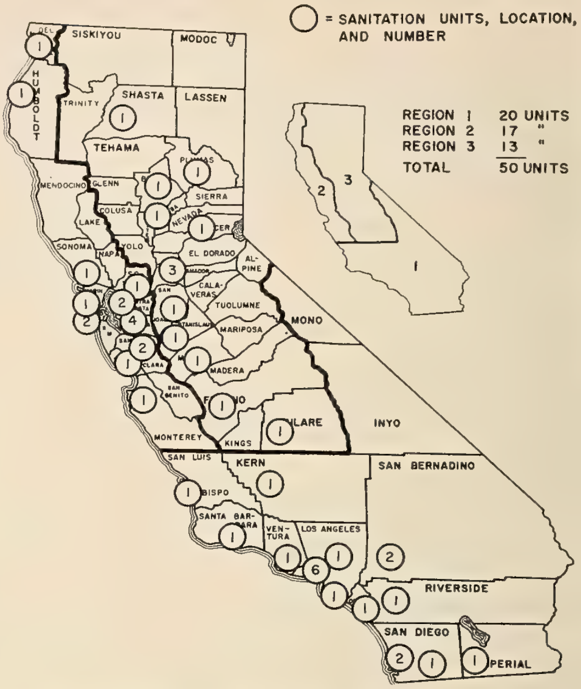
Designation of a chief of staff for professional services.

Designation of specialized teams for specific purposes such as:

Trauma
Burns
Fractures
X-rays
Maxillofacial
Epidemiological
Blood and blood derivatives
Laboratory
Nursing
Radiological defense
Neurosurgical
Casualty collecting
General treatment and care, etc.

CHART 8

DISTRIBUTION OF STATE CIVIL DEFENSE SANITATION SUPPLIES


○ = SANITATION UNITS, LOCATION, AND NUMBER
REGION 1 20 UNITS
REGION 2 17 "
REGION 3 13 "
TOTAL 50 UNITS
1
2
3
SISKIYOU
MODOC
HUMBOLDT
TRINITY
SHASTA
LASSEN
TEHAMA
PLUMAS
MENDOCINO
GLENN
SIERRA
COLUSA
NEVADA
LAKE
SONOMA
NAPA
YOLO
EL DORADO
ALPINE
AMADOR
CALAVERAS
TUOLUMNE
MONO
MARIPOSA
MADERA
SAN BENITO
MONTEREY
KINGS
INYO
SAN LUIS OBISPO
KERN
SAN BERNADINO
SANTA BARBARA
VENTURA
LOS ANGELES
RIVERSIDE
SAN DIEGO
IMPERIAL

Designation of a receiving area
Designation of treatment wards or areas
Designation of operating rooms
Supply procedures
Food procurement, preparation, type of emergency diet, etc.
Identification methods and procedures
Records
Public information
Utilities and engineering

The neighborhood should be surveyed with a view to taking over buildings suitable for housing patients during the emergency.

The problems of panic control, handling enormous numbers of visitors and anxious relatives, traffic control, etc., should be assigned to competent personnel.

A more comprehensive outline of this plan is contained in State Office of Civil Defense "Manual for Existing, Auxiliary and Improvised Hospitals," dated March 1952.

The hospital plan must also provide for:

1. Exploration of present bed facilities on short notice.

2. Evacuation of patients if necessary.

3. Selection of alternate hospitals to evacuate to if necessary.

4. Number, location, and capacity of convalescent homes, if any, in the area.

5. A registry of all trained laboratory personnel, registered nurses, practical nurses, nurses aides and others who can immediately be called to duty.

Simple standardized procedures of treatment should be worked out as much as possible for the most common types of injuries.

Additional points which should be planned for are as follows:

1. A simple method for keeping records on all casualties.

2. The type and number of transportation available to transport patients or casualties. Motor ambulances, motor trucks, motor buses, laundry trucks, etc.; also the number of splints, litters, blankets and first aid supplies available.

Inventories of all types of medical supplies, such as dressings, drugs, biologicals, antibiotics, surgical, equipment, laboratory supplies, blood and blood derivatives, and of other supplies should be kept up to date at all times.

The California Medical Association Committee on Military Affairs and Civil Defense and the Governor's Emergency Medical Advisory Committee has also helped in the development and accomplishment of the following:

A blood procurement program has been set up. Approximately 378,000 blood vacuum bottles together with donor and recipient sets have been shipped and stored at various locations throughout the state (Chart 9).

Almost all of the equipment, drugs, dressings, antibiotics, dried plasma, splints, litters and blankets for the aid stations have been received, unitized, packed, and shipped, and stored in the various regions of the state.

Many hospitals throughout the state are organized for disaster according to plans in the Civil Defense Hospital Manual.

A plan has been developed for rotation through state hospitals of stored antibiotics to reduce, as far as possible, loss through the expiration of potency.

MEDICAL AND HEALTH SURVEY

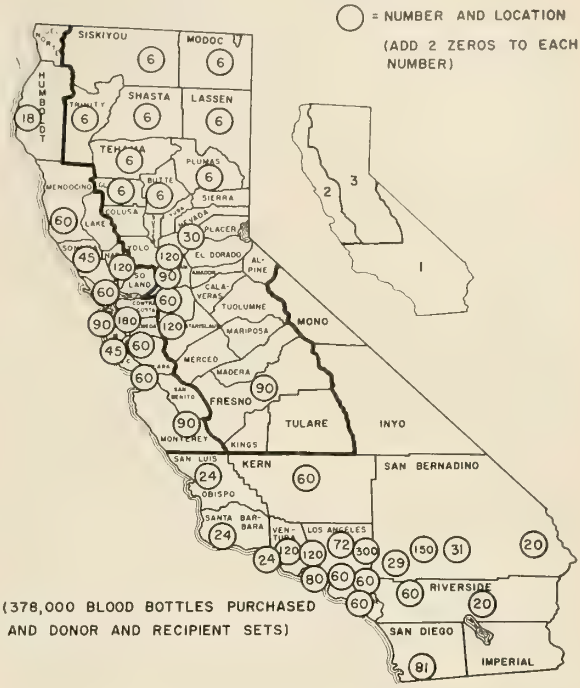
A medical and health survey of the resources of all counties has been done in California[4] for the purpose of finding out what resources are available and what would be the maximum number of people the city or county could care for in case of disaster.

In making the survey the following resources in the areas were considered:

Personnel
Weather
Utilities
Sewage disposal capacity
Food supply
Feeding facilities
Housing
Transportation
Hospitals
Clinics
Laboratories
Rest homes
Blood banks
Medical supplies
Clothing
Emergency sanitary facilities

CHART 9

DISTRIBUTION OF STATE CIVIL DEFENSE BLOOD BOTTLES, DONOR AND RECIPIENT SETS



= NUMBER AND LOCATION
(ADD 2 ZEROS TO EACH NUMBER)
SISKIYOU
6
MODOC
6
HUMBOLDT
18
TRINITY
6
SHASTA
6
LASSEN
6
TEHAMA
6
PLUMAS
6
MENDOCINO
6
BUTTE
6
SIERRA
COLUSA
60
LAKE
NEVADA
30
PLACER
YOLO
45
120
120
EL DORADO
ALPINE
SOLANO
90
AMADOR
60
60
CALAVERAS
CONTRA COSTA
TUOLUMNE
90
180
120
MARIPOSA
MONO
45
60
MERCED
60
MADERA
90
SAN BENITO
FRESNO
90
MONTEREY
KINGS
TULARE
INYO
SAN LUIS OBISPO
24
KERN
60
SAN BERNADINO
SANTA BARBARA
24
VENTURA
LOS ANGELES
24
120
120
72
300
29
150
31
20
80
60
60
60
60
RIVERSIDE
20
SAN DIEGO
81
IMPERIAL
3
2
1

(378,000 BLOOD BOTTLES PURCHASED AND DONOR AND RECIPIENT SETS)

The type of medical care that the patients would receive would depend largely upon some of the factors as follows:

1. The medical and health disaster plan and organization for the area in question.

2. The proportion of professional people to patient load.

3. The amount of medical supplies and equipment available.

4. The number of trained volunteer medical technicians.

5. The number of first aid workers.

6. The number of permanent and improvised hospitals.

7. The available whole blood, blood derivatives and blood substitutes.

Table 1 is a brief summary of the data from counties that have completed the medical and health part of the care capacity survey. The summary shows the number of patients that could be housed and the number of medical personnel available at present in the various counties surveyed.

The data in Table 1 serve to point up the need for careful planning for the greatest and most efficient use of trained medical and health personnel. All available personnel should be trained in accepted techniques for the mass handling of casualties. Likewise the importance of every hospital having a disaster plan cannot be overemphasized.

TABLE 1.—*Data obtained from medical and health survey of counties to determine capacity for medical care in event of disaster.*

Counties	Existing —Hospitals— No.	No. Beds	Total Max. Bed Spaces Available (including Expanded Hospitals)	Physicians	Dentists	Registered Nurses	Technicians	Other Auxiliary Personnel	Red Cross —Trained— To Assist Nurses	First Aid Workers
Del Norte	2	67	2,976	5	2	1	6	6	28	....
Humboldt	6	400	113,907	76	34	318	24	59	....	2,500
Lake	1	30	13,007	14	5	63	3	9	....	....
Mendocino	6	223	14,048	42	15	130	8	13	....	....
Butte	6	380	18,318	65	42	150	29	55	200	200
Shasta	4	277	2,814	33	16	150	19	15	50	....
Tehama	3	130	2,321	15	7	12	11	15	30	30
Marin	3	267	19,043	303	35	418	22	28	88	....
Napa	5	6,486	18,644	106	30	150	25	44	30	100
Sonoma	8	3,577	61,707	196	66	....	45	118	186	1,809
Solano	4	461	24,985	132	50	229	41	63	104	1,200
Contra Costa	6	765	48,043	153	85	520	262	151	260	33
Santa Clara	8	1,375	113,474	608	265	1,650	231	283	210	2,000
San Mateo	12	1,833	55,957	478	138	1,685	118	15	6,340	4.323
Stanislaus	7	730	1,567	146	54	500	30	92	64	10,000
Sacramento	8	1,513	57,414	339	184	522	123	257	278	26,000
Tuolumne	2	90	5,357	12	6	62	7	13	212	300
Yolo	2	283	15,219	15	6	61	3	11	20	200
Monterey	7	674	35,376	138	69	350	32	93	75	108
San Benito	2	78	2,223	11	4	20	8	13	50	50
Santa Cruz	4	328	19,755	76	33	241	19	82	....	....
*Fresno	6	613	62,586	220	22	742	40	176	375	900
*Kern	9	973	25,311	29	7	49	......	......	37	108
Madera	3	157	11,446	15	6	90	16	17	186	40
*Tulare	5	243	17,940	47	26	119	16	38	234	1,785
*San Luis Obispo	4	182	4,947	38	11	114	15	18	54	460
Santa Barbara	6	861	27,016	206	68	419	62	78	101	636
Ventura	5	510	31,549	142	60	316	52	94	288	3,179
*Inyo	2	49	534	11	4	40	4	9	76	150
Mono	1	8	662	1	......	6	......	......	....	55
Riverside	11	579	2,972	215	58	272	46	116	143	1,265
San Bernardino	12	1,059	37,015	185	36	204	42	146	147	....
Orange	5	1,235	36,160	343	158	1,000	75	205	446	2,698
Imperial	2	102	10,886	53	12	....	23	18	....	....
San Diego (except San Diego City)	3	127	153,252	1,125	......	2,500	1,300	650	2,500	6,000

*Incomplete.

ATOMIC, BIOLOGICAL AND CHEMICAL WARFARE

Another paper in this issue will be devoted to the medical aspects of atomic and thermonuclear warfare and therefore no comments on those topics will be made here.

The veterinary, public health and agricultural groups have been alerted to the possibilities of biological warfare. Civilians should be encouraged to seek advice and information from physicians regarding any unusual sickness of humans, plants or animals. They should report any unusual sickness of themselves or of any of their domestic pets or animals to a physician so that the physician can see to it that the proper measures are taken and that the disease is reported if necessary. Maintaining high standards of sanitation and observing all public health precautions will greatly reduce the hazards of biological warfare.

Many experts believe that in view of the increased destructiveness of the newer weapons and the fact that they can be efficiently used over target areas, it will not be necessary for the enemy to resort to chemical warfare. The weather conditions would have to be accurately known and very favorable for the chemical agents to be effective.

Even if civilians were issued gas masks, there is little likelihood of their having them with them or close at hand at the proper time. If the "nerve" gas were used, it would require that immediate protective measures including the use of atropine sulfate, be taken.

Many new informative articles have been released during the past two years concerning both biological and chemical warfare which should be studied in detail. Defense against biological and chemical warfare is not being neglected.

THE ARMED FORCES AND THE CIVILIANS

The armed forces will have their plans and supplies and no civil defense plan should be based on the premise that the troops or their supplies and facilities will be turned over for civilian use. All plans should be made without considering the use of the personnel and the supplies of the armed forces. Certainly for planning purposes, however, both the armed forces and the civilians should carefully consider each other's problems and needs. In no circumstances should the armed forces be saddled with problems which can be readily dealt with by trained civilians.

One must consider the possibility of hundreds of thousands of casualties occurring in a matter of minutes as a result of a simultaneous concentrated attack upon many key target cities. The armed forces will be busy, there will be no transport by planes for a time, and the supplies and equipment available will be only those which have been planned for and are on hand. When these supplies are exhausted it may be hours or several days before new supplies will arrive. It is impossible to look into the future and prepare against every kind of emergency, but great obstacles can be overcome by a reasonable, practical, workable civil defense plan.

It is hoped that the armed forces are fully cognizant of the great medical needs of the civilian population in any major future war and that they have fully considered this in all their medical plans.[5]

DISPERSAL AND EVACUATION

Studies are being made with regard to dispersal and evacuation of the population.[6] Since thermonuclear weapons are fully capable of destroying large cities, the only real protection against these weapons is either not to be there at the time of the blast or to have as much protective shelter as possible.

The only real defense against the thermonuclear weapons is dispersal of the population if there is sufficient warning time—three or more hours. It is regrettable that dispersal of industries has not been carried out during recent years.

Even if dispersal cannot be done because of shortage of time, evacuation of people in the path of the radioactive "fall-out" or where fires are a problem, may save many lives.

Dispersal and evacuation are associated with many problems such as road blocks, inadequate roads and poor planning, but much can be done about this. It is hoped that a consistent unified plan will be formulated in the near future with regard to evacuation.

CONCLUSIONS

Much has been accomplished in medical civil defense planning and organization in California, but a great deal remains to be done.

Civil Defense is here to stay and requires the active participation of every individual to the limit of his capacity.

Although the federal government must provide leadership, information of the magnitude of the problems to be faced, information of the type and quantity of supplies needed and money for matching purposes, the crux of the whole situation is how well the average individual down to the smallest communities is psychologically prepared, trained, and willing to carry out his appointed tasks.

At a time of crisis, the age-old cry of the injured has been, "Where is the doctor?" We must not fail them.

U.C.L.A. School of Medicine, Los Angeles 24.

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Civil Defense

Physicians' Responsibilities

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IF AND WHEN the nations of the world come to armed conflict to determine which of the two great economic and political structures shall prevail, it is certain that our cities will be attacked in such ways that enormous numbers of casualties will instantly make the greatest medical task in all history. If evacuation and dispersal plans are sufficiently developed, the number of casualties could be materially reduced, but another very complex problem will result from the dislocation of millions of people. Very briefly stated, the physician's responsibility in Civil Defense is to be ready, willing and prepared to fit into whatever segment of the effort he is assigned to serve, either for the care of casualties or the provision of the essential minimal medical care for the nonaffected population.

One of the first questions that no doubt comes to mind is: For what should we be prepared? The answer can be condensed into the statement that at some time or other, in some phase of the effort, physicians will be required to treat practically every condition to which the human body can be subjected. In view of the nature of the weapons that probably will be employed, by far the greatest majority of the patients will be suffering from the traumatic and thermal lesions so well known to every physician. These include lacerations, fractures, crushing injuries, penetrating wounds, trauma to organs, contusions, abrasions and flash and thermal burns. In addition, many people could also suffer from the effects of the elements—from heat exhaustion or prostration, dehydration or protracted chilling.

It is probable that psychic trauma, of individuals or groups, will be of such magnitude that even persons who are not otherwise injured will require careful attention to either restore them to a near normal state of useful participation or to prevent the development of mass reactions. Fear and anxiety form the bases of these reactions—fear engendered by the magnitude and horror of the disaster and anxiety for their own safety, for their families and friends, for their property and possessions and over the possibility of another attack. If unchecked and uncontrolled, panic can develop, during which individual and group rationalization is replaced by impulsive and frequently violent actions and reactions. A physician seeing people in such conditions can do much to assist in the rapid return of a fairly rational status by a demonstration of genuinely sympathetic interest and understanding, by confident reassurance, by letting them talk and thus assisting in the psychic decompression, and frequently by getting them some nourishment.

It must be recognized, though, that there will be many for whom these simple psychotherapeutic measures will be inadequate and who will require the specialized care of the psychiatrist. During the reconstruction phase, many readjustments will be necessary, when the loss of members of the family, of home, business and property is fully comprehended. Many will be able to make these readjustments, but it must be anticipated that a considerable number will need assistance in the form of psychotherapy. Many of the casualties will also require help in making the readjustments, especially the blind, the deformed and the mutilated.

Modern warfare assumes the use of atomic and thermonuclear weapons and the possible use of biological and chemical agents. Although the majority of the survivors of an atomic or thermonuclear detonation will suffer from traumatic injuries or burns, there will be some who will have radiation effects. This will be something new for American physicians. If chemical warfare is used, our physicians will have another new series of syndromes to treat. The widely publicized "nerve gases" require prompt administration of large doses of atropine. Hence, to be effective, self administration by the affected population will be necessary, with only those survivors with late symptoms coming into the casualty care system. Chemical agents were used in the first World War, but not in the second. Will they be used in the third?

The deliberate use of biological agents is a distinct possibility. In all of the wars of history until the most recent one, disease killed far more than the most ingenious weapons man could devise. In all wars of the past there was a battle against naturally occurring biological agents. Hence, if these agents are deliberately used, it is only logical to expect bacteria, viruses or toxins that are now known, although it is possible that those used may not be too familiar in our part of the world. The first line of defense has been in existence for many years in our health departments. It is of the greatest importance that unseasonable outbreaks of the usual diseases or the appearance of significant numbers of unfamiliar diseases be reported promptly.

There of course will be all the general medical and surgical conditions that normally affect the population, including the communicable diseases. When dispersal plans are put into operation, it is to be anticipated that with crowding in improvised shelters the incidence of all communicable diseases and upper respiratory infections will increase greatly. There will also be an increase in obstetrical cases, for as experience in the last war in the bombed cities of Europe demonstrated, in addition to those women who would normally be due to go into labor, large numbers either aborted or went into labor prematurely.

Preventive medicine will be of added importance in all its phases — immunizations, segregation of active cases of certain diseases, careful attention to sanitation, supervision of the preparation of food and the assurance of the potability of water.

After the acute phase will come the long and difficult task of rehabilitation, which could very well be protracted over many years. Plastic operations to make many people more acceptable to their fellows or to improve function. Reeducation and training of the blind; revision of amputations, and procurement and instruction in the use of prosthetic appliances; physical therapy for a wide variety of injuries—these are but a few of the tasks that will confront the medical profession during the readjustment period.

In Civil Defense the basic responsibility of physicians is that of saving the greatest number of lives and of restoring the largest possible number of people to useful, productive places in society. To do this, preparation for disaster must be made long before it strikes. As a starting point, estimates must be made of the casualties to be expected, based upon what we know of the weapons to be used, of population concentrations during different times of the day, of traffic potentials of the lines of communication, of personnel and facilities distribution and the availability of supplies.

From there, plans must be drawn up that are sufficiently flexible to be made to cope with a variety of conditions, from a fairly limited disaster, either natural or man-made, to a truly major catastrophe such as would be caused by the use of a thermonuclear weapon. Plans must also be made to very quickly provide medical services for the millions of displaced persons when dispersal becomes effective. There could be many different combinations of these contingencies. Plans not only must be flexible, but they must also be constantly revised to keep abreast of changing concepts necessitated by the development of new weapons and techniques. Included in planning there must be presumptive assignment of duties, with the realization that the conditions at the time may make it utterly impossible for any individual or group to function in the assigned capacity. Regardless of the type of practice now followed, physicians are all trained in the basic fundamentals of medicine and surgery, and must be prepared upon a moment's notice to make themselves fit into the effort wherever they are needed. There must also be a high degree of cooperation with and acceptance of allied professions and the many ancillary groups.

During disaster, the first responsibility is to the casualties. This implies that the physicians will stand fast and resist the natural impulse to flee. It also means that the normal anxieties about family, friends and possessions must be quickly overcome and that all will report for duty promptly. The destruction and confusion will prevent many from going to their assigned place of duty, and then they must willingly participate wherever the need exists. A major attack upon several of our metropolitan centers will require total mobilization of the entire state. Most of those living away from the target cities will be required to leave their homes to assist in the care of the tremendous number of casualties, leaving the smallest possible number behind to care for the most vital of the emergencies that will arise in the home communities.

Work will be done under the most primitive and frequently improvised conditions. All existing facilities will be required to expand many times beyond their normal capacity. Supply shortages will develop very quickly. All of these things emphasize the necessity of using standardized methods of treatment, the greatest of ingenuity and the determination to work far beyond what have been considered the limits of endurance. In addition to the purely professional tasks, it may also be necessary to supervise radiological, chemical and bacterial decontamination. An additional nonprofessional duty is that of safeguarding the property and valuables of those going through the casualty care system.

As to the noncasualties, minimal essential medical care must be provided for those in the nontarget communities and for the thousands of persons crowded into the mass care centers. This can probably best be accomplished by establishing a service of dispensary type, reserving hospitalization for the most urgent cases. The greatest of skill, judgment and tact will be necessary to assure that those who are actually sick get attention, to eliminate the many who feign illness for whatever reasons, and to ease the psychic trauma. Provision will also have to be made for obstetrical care, since, as was previously stated, a considerable increase in this service must be expected.

The related medical services must also be provided, although in somewhat restricted form, for the noncasualties. Among these are public health services, including communicable disease control, mass immunizations, sanitation supervision, food and water inspection and the maintenance of vital statistical records. The importance of keeping accurate records cannot be overemphasized, especially in the mass care centers.

Some of the most difficult problems will be encountered after the immediate disaster period. Rehabilitation of the casualties has been mentioned previously. As the survivors gradually return to what had been their home communities, a system of medical care will have to be established, under the most difficult and trying conditions. Many facilities will have been destroyed. Communications will be greatly limited. Supplies and equipment will be nonexistent or available in very limited amounts. Large areas of the cities will be completely destroyed or very badly damaged. How long it will take until public utilities are provided is a matter of speculation. Controls of all kinds must be very rigid to prevent utter chaos. All of these elements will contribute to one of the most difficult tasks that the profession will have—that of continuing to provide care for those remaining in the evacuation and mass care centers and at the same time rebuilding a medical care system for those returning to their home cities.

Physicians also have continuing responsibilities to the patients they are treating at the time of attack. How much time they can give to them will depend upon the extent of the disaster and the location of the physician in relation to the devastated areas.

In limited disasters, the majority of physicians may continue to practice in their usual manner, although some will be called upon to care for the victims. It is possible that those who are in the immediate vicinity will have total temporary disruption of their practices until offices can be reestablished.

When evacuation and dispersal is effective, the extent of the dispersal will determine the degree of disruption of the usual physician-patient relationship, both in the target and in the nontarget areas. The very nature of modern urban practice is such that it would be practically impossible for any evacuated physician to maintain contact with his evacuee patients.

The physicians in the reception areas will be faced with tremendous tasks of caring for the many thousands of people who will be in temporary residence in their areas, even if the evacuated physicians can assist. Physicians in the other nontarget areas must remain on a stand-by basis, awaiting their call to go to the assistance of the stricken areas.

In the event of a major disaster there will be total mobilization throughout the entire state. There can be no such thing as "business as usual" in any type of human endeavor, including the practice of medicine. We must be prepared to accept a complete interruption of the usual physician-patient relationship. The barest minimum of physicians will remain behind in the nonaffected communities, even at great distances from the disaster areas. Every available man and woman will be urgently needed, which will necessitate many being gone from their home communities for days. How long it will be until there is a return to anything near the previous normal can be determined only by the nature and extent of the disaster.

Finally, we have political responsibilities, both as physicians and as good citizens. An adequate, well organized and well equipped civil defense system costs millions of dollars, even at the local level. It is our duty to insist that the legislative bodies, federal, state and local, appropriate sufficient funds to assure that when the day of disaster comes, we will be prepared. The will to do something is not enough. There must be organization, direction, leadership, plans that can quickly be put into operation, and the necessary supplies and materiel. It is possible that Civil Defense will not be the effective instrument that it should be until it is given its proper stature in government. The ideal solution would seem to be the creation of a Department of Civil Defense within the federal Department of Defense, to be headed by a secretary who would rank equally with the secretaries of the Army, Navy and Air Force, and with representation on the Joint Chiefs of Staff. This is an ideal that will be difficult to accomplish, but it is so vital to the lives, welfare and property of so many millions of our fellow citizens that every physician could be proud of any part he could have in its realization.

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Civil Defense

The Medical Aspects of Atomic and Thermonuclear Warfare

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It is imperative that all physicians, regardless of their particular interest in medicine, learn as much as possible about atomic energy. Whether we approve of it or not, scientific developments based on atomic energy and nuclear research have changed and will continue to change the whole course of our lives and that of nations.

For many years there was considerable apprehension that, with the growing population and economy of this nation, the natural resources of coal, oil and gas would be depleted. With the advent of the new atomic energy discoveries, almost limitless sources are now available to provide fuel and power. Also deposits of thorium, which are more plentiful than uranium and which can be utilized in the production of atomic energy, are constantly being discovered.

It is unfortunate that, at mention of the term *atomic energy*, immediately most people think in terms of atomic and hydrogen bombs and of their great destructive force. Many of the better things to come will result from atomic energy research. The concentration of effort upon peacetime pursuits has really just begun. Surely, then, this great new scientific discovery—the harnessing of the energy in the atom—will stimulate everyone to wonder, to learn as much as possible about it, and to encourage further atomic energy research.

If we are to achieve these developments, we must have peace for a long time ahead. Peace is based on a nation prepared not only to wage atomic war but to defend itself in case of attack. A well prepared civil defense is the key. The data presented here are what every doctor should know.

The present report is in three parts: Part I—The Phenomenology of the A-bomb; Part II—Preparations for Radiological Defense in California; Part III—The Management of Radiation Injuries.

I. The Phenomenology of the A-Bomb

From Einstein's theory of relativity ($E=mc^2$) it is known that mass and energy are interchangeable. At any time there is a decrease in mass as a result of a reaction, then this decrease in mass is converted into energy. In the Einstein equation, E stands for energy, m for mass, and c^2 is the square of the velocity of light.

In an atomic explosion the energy is released by a nuclear rearrangement of a suitable atomic nucleus and the matter is converted into energy. The sum total of the energy released by an atomic or thermonuclear explosion is as follows: Blast, approximately 55 per cent; thermal radiation, 30 per cent; nuclear radiation, 15 per cent, of which approximately 10 per cent is from delayed or residual radiation.

Uranium is the element of highest atomic number that exists in nature. It consists of a mixture of three isotopic forms with mass numbers 234, 235 and 238. When uranium is fissioned, only about 0.1 per cent of its energy is released.

In uranium ore the uranium-238 isotope constitutes 99.282 per cent; uranium-235, only 0.712 per cent; and the remainder is uranium-234. There is only one part of U-235 for 140 parts of U-238.

When neutrons are added to U-235 nuclei, a violent reaction takes place which results in nuclear fission or the splitting of the atom into two parts with the further release of one to three neutrons or an average of 2.5 neutrons with each fission or splitting of the U-235 nucleus (Chart 1). The two parts of the atom which are split off are called fission products. Neutrons are electrically neutral particles present in all atomic nuclei except simple hydrogen. They are about the same weight as protons and are approximately 1,840 times heavier than an electron. With the emission of neutrons in the fission of the U-235 nuclei, gamma rays and beta rays are also produced. Alpha rays may be emitted in the fissioning process but usually they come from unfissioned material.

Plutonium-239, which is a man-made fissionable material, will undergo fission as a result of bombardment by either fast or slow neutrons, just as U-235 does. It emits alpha particles and has a half life of 24,000 years. The half life of U-235 is 7.07×10^8 years (107,000,000 years).

Plutonium is formed as follows:

Plutonium-238 captures a neutron and becomes 239, which has a half life of 23 minutes and decays by the emission of a negative beta particle with

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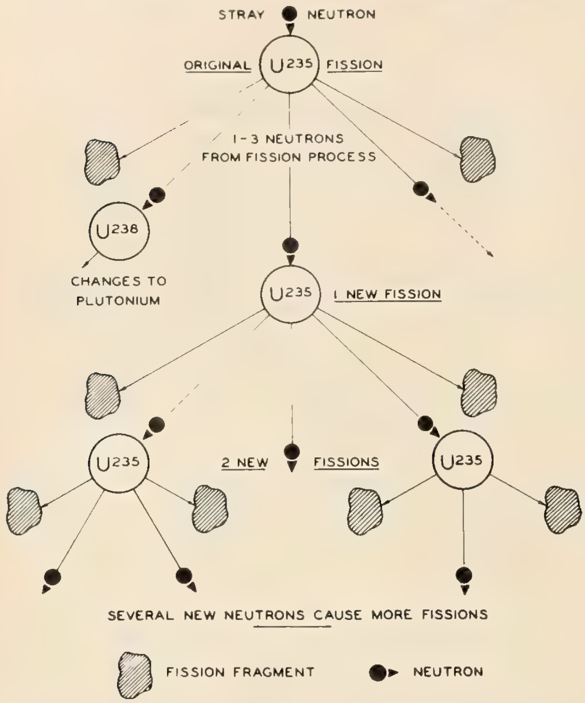
Chairman, Radiologic Safety Advisory Committee, State of California (Warren); Chairman, Committee on Military Affairs and Civil Defense, C.M.A., and member Radiologic Safety Advisory Committee (Stein).

Chart 1.—Splitting or fission of the U-235 nucleus.



neptunium-239 formed, which is a scarce isotope having a half life of 2.3 days. It emits negative beta particles forming plutonium-239 (Pu-239).

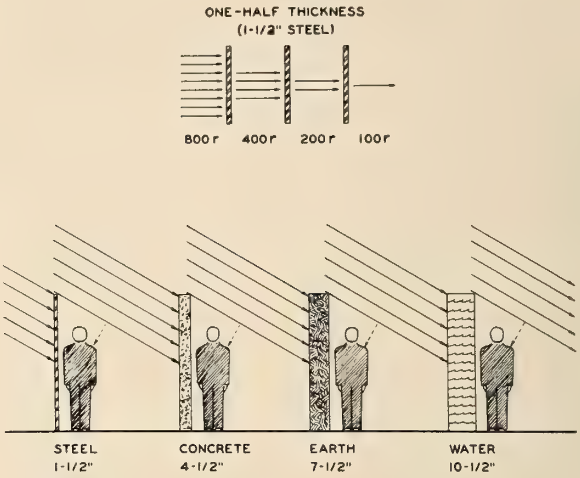
Uranium-235 and plutonium-239 are used in atomic bombs.

It is therefore noted that when the U-235 atom is fissioned or split, neutrons are also produced which help bring about the chain reaction so necessary to cause the explosion. With each fission an average of 2.5 neutrons are added so that if the fissioning or splitting continues a sustained chain reaction may result.

If two unequal parts of U-235 or of Pu-239 can be brought together so that an overcritical mass is formed and held together sufficiently long, the tremendous chain reaction produced in a substantial number of the atoms will result in the production of tremendous heat (more than a million degrees centigrade in a millionth of a second) which will cause the explosion. A critical mass is one in which the number of neutrons being produced is greater than the number necessary to keep the fission reaction going at a fixed rate and when the number is exactly equal to the number of electrons lost.

The efficiency of the bomb will depend upon how long the two fragments of U-235 or Pu-239 can be held together. The more fissioning of the atoms which occurs, the more energy produced. The critical size of a fissionable mass is that amount which is necessary to produce a sustained chain reaction.

Chart 2.—The comparative shielding effects of steel, concrete, earth, and water.



The H-bomb is an open ended weapon because it is not limited in the amount of critical material to be used. Tritium which is used in the hydrogen bomb is produced by irradiating lithium metal in a nuclear reactor.

The "nominal" A-bomb has been the 20 kiloton bomb size. Bombs of this size were exploded over Hiroshima and Nagasaki. Severe damage from this size bomb will cover about 4.6 square miles. The radioactivity produced in this type of bomb at the time of the explosion is equivalent to more than a million tons of radium. Improved A-bombs have been made so that greater efficiency has been obtained.

The hydrogen bombs are spoken of in terms of megatons (one megaton having the explosive equivalent of one million tons of trinitrotoluene). For practical planning purposes in California, the 20 megaton hydrogen bomb is considered as presenting the worst possible disaster. The hydrogen bombs are city-killers. Considerable damage and dangerous levels of radioactivity may be expected out to 20 miles in all directions from the point of explosion, depending upon wind and climatic conditions when the bombs are detonated. There are some observers who believe that, since the improved A-bombs are so effective, there is little need for and few targets worthy of the hydrogen bomb.

Protection from Nuclear Radiation*

Because it has great penetrating properties, nuclear radiation either requires that there be protection by shielding materials or that one be at a considerable distance from the detonation. Time and distance are two very important factors. With greater distances even without protective shielding, one may be completely safe.

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*For simplicity, all estimates made here are based on a 20-kiloton bomb, unless otherwise specified.

TABLE 1.—Comparison of casualties for atomic and conventional bombs

	Hiroshima Atomic Bomb	Nagasaki Atomic Bomb	Tokyo 1,667 Tons TNT and Incendiary	Average of 93 Attacks 1,129 Tons TNT and Incendiary
Population per square mile	35,000	65,000	130,000	....
Square miles destroyed	4.7	1.8	15.8	1.8
Killed and missing	70,000	36,000	83,000	1,850
Injured	70,000	40,000	102,000	1,830
Mortality per square mile destroyed	15,000	20,000	5,200	1,000
Casualties per square mile destroyed	30,000	42,000	11,800	2,000

The most commonly available materials for shielding against nuclear radiation are steel, concrete, earth and water. The half-thickness[†] for steel is approximately 1½ inches, concrete 4½ inches, earth 7½ inches and for water 10½ inches (see Chart 2).

It has been estimated that for an air burst of a 20-kiloton bomb at an altitude of 2,000 feet, if an individual was one-half mile from ground zero, it would require 6 inches of steel, or 19 inches of concrete, or 30 inches of dirt to reduce the radiation intensity to 100 r (see Figures 1 and 2). The range of the immediate nuclear reaction does not increase in proportion to the greater energy release of the bomb. In other words, a bomb twice as big does not do twice as much damage.

The bomb may be exploded in the air, on the ground surface, below the ground, and on the surface of or below the surface of water. The manner in which the bomb is exploded will depend upon the type and size of the bomb and, in particular, the military objective. A comparison of casualties for atomic and conventional bombs is shown in Table 1.

Air Burst

An air burst is when a bomb is exploded in the air at such a height that the fire ball does not touch the earth or water surface. A maximum of destructive effect with a minimum of radioactivity remaining in the bomb area can be obtained in this manner. People would be able to enter the bombed area in a matter of minutes following the bomb burst after radiological surveys had been made.

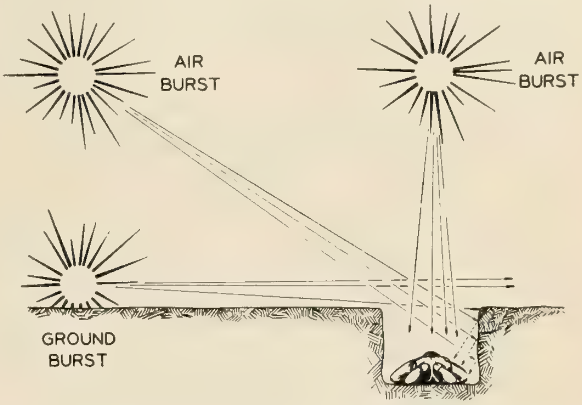

Figure 1.—Foxhole type of shelter of great value except for the overhead bomb explosion.

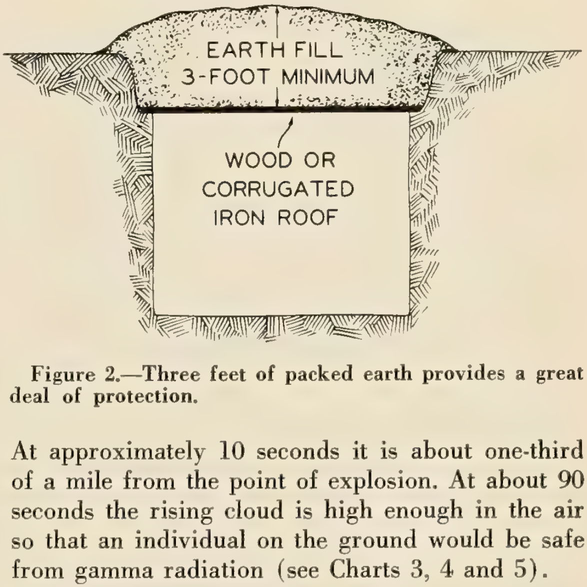

Figure 2.—Three feet of packed earth provides a great deal of protection.

Ball of Fire

A ball of fire with considerably more than 1,000,000°C. of heat in its center is formed in less than a millionth of a second. The intensity of the light is such that the brightness is many times that of the sun at midday. The glare in the sky may be seen for hundreds of miles if the bomb is detonated before sunrise. Within 0.5 of a second the ball of fire measures 900 feet in diameter. At one second it is more than 900 feet in diameter and goes upward at the rate of from 150 to 300 feet per second. At approximately 10 seconds it is about one-third of a mile from the point of explosion. At about 90 seconds the rising cloud is high enough in the air so that an individual on the ground would be safe from gamma radiation (see Charts 3, 4 and 5).

High winds occur in the immediate vicinity of the explosion, from the updraft; and, depending upon the size of the bomb detonation and the nature of the underlying terrain, various amounts of dirt, rocks and other materials will be sucked up into the rapidly rising column. The top of the rising column consists of radioactive oxides of the fission products, of water vapor and droplets, and of dust and other materials, depending upon the terrain at the site of the detonation. It takes about 8.5 minutes

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[†] Half-thickness is that amount of thickness of the material in question which will reduce the radiation intensity by one-half.

Chart 3.—Results of high air burst after 0.5 seconds.

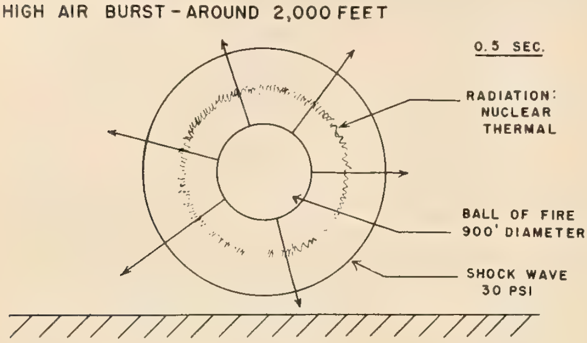

HIGH AIR BURST - AROUND 2,000 FEET
0.5 SEC.
RADIATION: NUCLEAR THERMAL
BALL OF FIRE 900' DIAMETER
SHOCK WAVE 30 PSI

Chart 4.—High air burst effects and physical appearance at 1.5 seconds and 3 seconds.

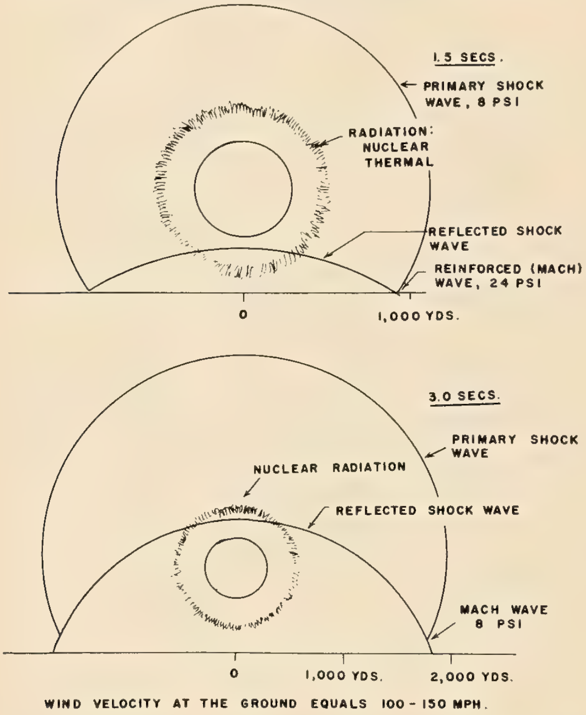
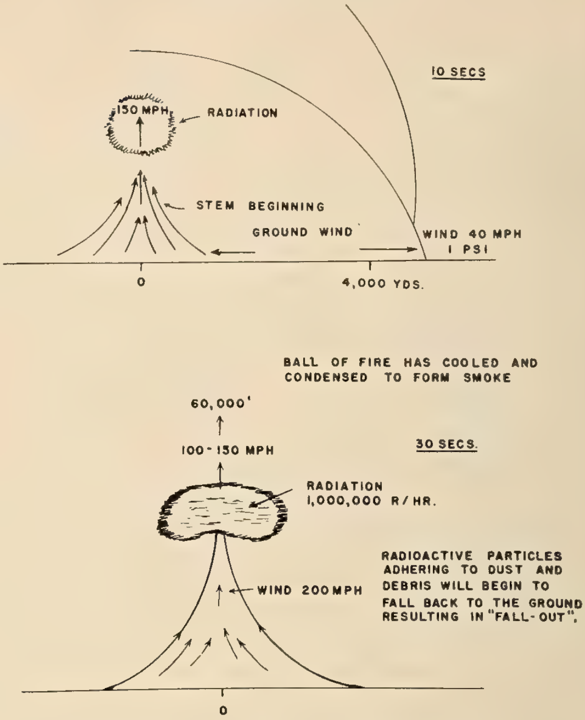

1.5 SECS.
PRIMARY SHOCK WAVE, 8 PSI
RADIATION: NUCLEAR THERMAL
REFLECTED SHOCK WAVE
REINFORCED (MACH) WAVE, 24 PSI
0
1,000 YDS.
3.0 SECS.
PRIMARY SHOCK WAVE
NUCLEAR RADIATION
REFLECTED SHOCK WAVE
MACH WAVE 8 PSI
0
1,000 YDS.
2,000 YDS.
WIND VELOCITY AT THE GROUND EQUALS 100 - 150 MPH.

Chart 5.—High air burst effects at 10 seconds and 30 seconds.


10 SECS
150 MPH
RADIATION
STEM BEGINNING
GROUND WIND
WIND 40 MPH 1 PSI
0
4,000 YDS.
BALL OF FIRE HAS COOLED AND CONDENSED TO FORM SMOKE
60,000'
100 - 150 MPH
30 SECS.
RADIATION 1,000,000 R/HR.
RADIOACTIVE PARTICLES ADHERING TO DUST AND DEBRIS WILL BEGIN TO FALL BACK TO THE GROUND RESULTING IN "FALL-OUT".
WIND 200 MPH
0

for the atomic cloud to reach 30,000 feet. As the cloud ascends it liberates heat and when it reaches 40,000 to 60,000 feet its temperature is fairly near that of the atmosphere and it will spread out and form the familiar mushroom appearance.

Blast Effect

A shock wave goes out faster from the expanding gases than the expansion of the ball of fire. When the shock wave reaches the ground from a 2,000-foot burst, it may have more than 30 pounds of pressure per square inch (in addition to the normal atmospheric pressure of 14.7 pounds per square inch). This pressure lasts for about one second. It then decreases until it is reinforced by the reflected shock wave at about 1,000 yards in one second. The reflected shock wave is known as the Mach effect, and it increases the pressure to 24 pounds per square inch. At about 10 seconds, or at about 5,000 yards distance, the pressure has dropped to one pound per square inch over that of the normal atmospheric pressure.

The instant the shock wave and wind blast have passed with the decreased pressure, a vacuum is formed and the winds are reversed in direction and rush back at lower speeds. This phase lasts for about two seconds.

The effect of the blast will depend upon the size of the bomb and upon prevailing meteorological conditions. Within a radius of one-half mile numerous individuals would die of radiation effects, of trauma from flying objects, and of burns. From one to two miles from the bomb burst there would be radiation injuries, burns, and varying degrees and combinations of different types of trauma. From two to three miles from the bomb burst there would be wounds largely from flying objects.

Thermal Radiation

Flash burns will be produced as far out as two miles and heat can be felt to ten miles. Tremendous amounts of infra-red, visible and ultraviolet light are produced. The intensity of the effects will depend also upon prevailing climatic conditions. The thermal radiation is absorbed in the first three seconds following the explosion. Loose fitting white clothing provides more protection than tight fitting dark clothing (Figure 3). The subject of burns is discussed in another paper in this issue.

Nuclear Radiation

The instantaneous radiation consists of gamma rays and neutrons and forms 5 per cent of the 15 per cent of total nuclear radiation. The initial radiation is dangerous to about 2,000 yards. The neutrons travel less than 2,000 yards before they are absorbed in the air. The instantaneous radiations persist for only a millionth of a second and they come from the chain reaction. The alpha particles have a positive charge, low penetrability, and are absorbed in less than 4 inches of air and by thin layers of paper or clothing. The beta rays or particles produced are negatively charged electrons with low penetrability and do not constitute a hazard from the immediate explosion effect. Both the alpha and beta particles may cause serious radiation injuries as a secondary effect from the residual radiation if inhaled or ingested. Skin burns may also be produced.

The delayed radiations comprise about 10 per cent of the 15 per cent total radiations from the bomb. Beta particles and gamma radiation are emitted by the fission products for some time after the bomb is detonated.

Since most of the fission products are either in or around the ball of fire, they ascend with the cloud. Within two minutes after a high air burst the cloud is so far away that there is little danger from radiation unless the wind currents and "fall-out" are unfavorable. As the cloud rises the exposure hazard diminishes by distance and time; since 50 per cent of the gamma radiation is emitted in one second, 80 per cent in the first ten seconds, and practically none after two minutes. Problems associated with the radioactive fall-out will be discussed later.

Surface Burst

A surface burst is one in which the bomb is detonated at or close to the surface. It causes great damage and the blast effect is tremendous, since it is largely outward instead of downward and outward. More thermal radiation is produced and a great cloud of radioactive debris is sucked up into the rapidly ascending cloud. The radioactive metallic oxide particles in the cloud will adhere to the dirt. The contaminated dirt particles in the cloud become contaminated with radioactivity and later fall to the earth, producing what is commonly known as the fall-out.

It would not be safe to enter the bombed area until after studies had been made by radiological monitoring groups. It might be months before one could safely enter the contaminated area to remain for any considerable time.

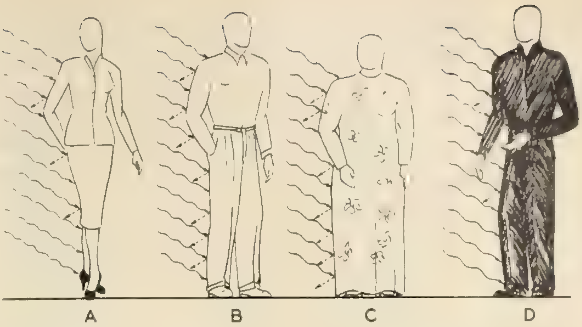


Figure 3.—Loose fitting white clothing provides more protection from thermal radiation than tight fitting clothing.

The ingestion or inhalation of radioactive materials may constitute a great hazard. The beta particles can only penetrate a few millimeters of the intact skin. The deposition of the fission products of plutonium-239 or of uranium-235 in the body is a definite hazard. Thorough washing of the feet, hands, hair and other external surfaces of the body will prevent some of the hazard. It will also help to avoid, if possible, inhalation or ingestion of the radioactive materials.

Packaged food or canned foods can be safely consumed providing the container is intact. Water can usually be safely consumed, especially if there has been a relatively long interval of time between the bomb blast and use of the water. Beef can be consumed if the outer portion has been protected by a cover in some way.

Underwater Burst

In the event of underwater burst, practically all the initial nuclear and thermal radiation is absorbed by the water. There would probably be no direct thermal injuries but there might be many flame injuries from fires aboard ships and in the harbor installations. (See Charts 6, 7 and 8.)

Radioactive Fall-Out

Radioactive fall-out is the term used to describe the great amount of radioactive metallic oxide particles, dirt and debris of all types sucked up into the cloud as it ascends from the earth or from an underwater burst into the sky and which later fall back to the earth or water surface.

What is important in the fall-out is the amount of radioactivity which it contains. The force and direction of the winds, and the atmospheric conditions prevailing will increase or decrease the fall-out hazards. Knowing what the prevailing wind patterns are for any given area and being able to determine them quickly following any bomb burst, is of great importance. The wind patterns are constantly changing and one cannot predict what they will be on any given date.

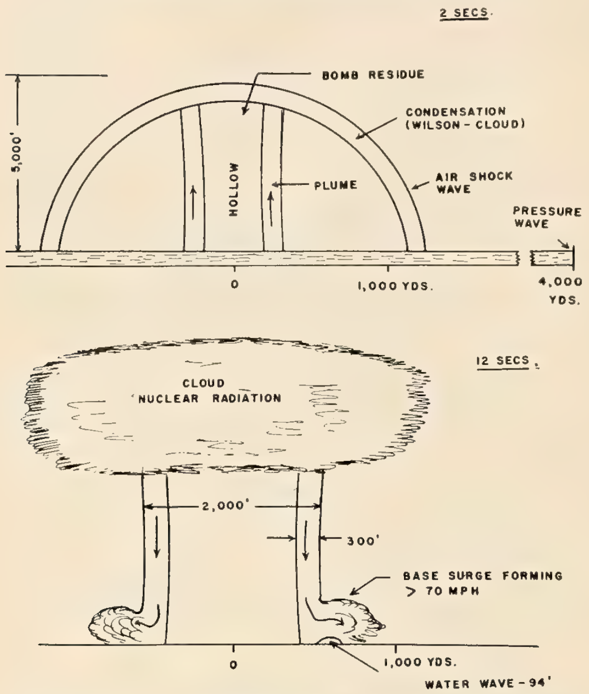


Chart 6.—Results and physical appearance after underwater burst at 2 seconds and 12 seconds.

2 SECS.
BOMB RESIDUE
CONDENSATION (WILSON - CLOUD)
5,000'
HOLLOW
PLUME
AIR SHOCK WAVE
PRESSURE WAVE
0
1,000 YDS.
4,000 YDS.
12 SECS.
CLOUD
NUCLEAR RADIATION
2,000'
300'
BASE SURGE FORMING > 70 MPH
0
1,000 YDS.
WATER WAVE - 94'

Recently in discussing the fall-out problem, Libby[3] made the following statement: "The nuclear reactions furnishing the energy in atomic and thermonuclear weapons produce radioactivities as end products. In the ordinary atomic bomb, for each 20,000 tons of TNT equivalent, about two pounds of radioactive materials are produced. In these two pounds are some ninety different radioactive species, varying in natural lifetime from fractions of a second to many years. The mixture as a whole decreases in radioactivity in such a way that for every seven fold increase in age, the radioactivity is decreased ten fold. Thus the radioactivity by seven hours after the explosion has decreased to 1/10 the radioactivity at one hour; at 49 hours to 1/100; at two weeks to 1/1000; and at three months to 1/10,000." (See Chart 9.)

The fall-out pattern can be determined by skilled personnel who have the proper equipment and training. It is very necessary to be able to estimate the pattern, because whole communities may be in the path and with proper warning they could be evacuated, since it may take several hours for the fall-out to reach the ground at a considerable distance. Also, after areas are bombed it can be determined if they are safe to enter and for how long a period of time.

II. Radiological Defense*

It can be safely said that California has one of the finest radiological defense organizations and plans in this country and perhaps the best.

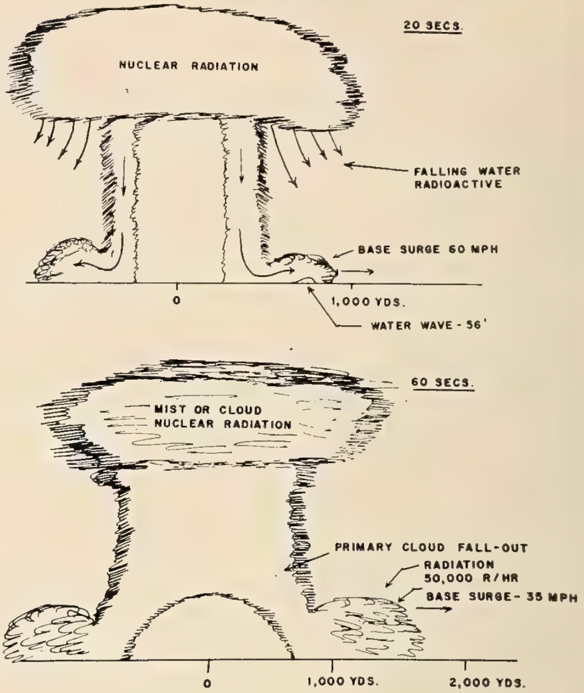


Chart 7.—Results and physical appearance after underwater burst at 20 seconds and after 60 seconds.

20 SECS.
NUCLEAR RADIATION
FALLING WATER RADIOACTIVE
BASE SURGE 60 MPH
0
1,000 YDS.
WATER WAVE - 56'
60 SECS.
MIST OR CLOUD
NUCLEAR RADIATION
PRIMARY CLOUD FALL-OUT
RADIATION 50,000 R/HR
BASE SURGE - 35 MPH
0
1,000 YDS.
2,000 YDS.

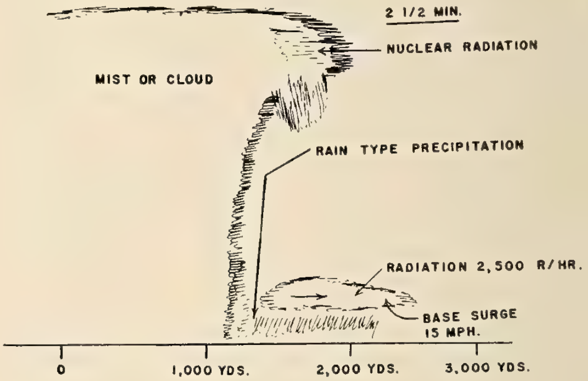


Chart 8.—Results and physical appearance of underwater burst at 2½ minutes.

2 1/2 MIN.
NUCLEAR RADIATION
MIST OR CLOUD
RAIN TYPE PRECIPITATION
RADIATION 2,500 R/HR.
BASE SURGE 15 MPH.
0
1,000 YDS.
2,000 YDS.
3,000 YDS.

After the invasion of Korea in June of 1950, and with the formulation of civil defense plans it was decided that radiological defense should be a big factor in the planning. California is highly vulnerable to attack from the air and the sea and has many critical targets.

Basic assumptions are as follows:

1. An enemy exists who is capable of attacking this country.

2. Atomic weapons, guided missiles, high explosives, and sabotage are available to the enemy.

3. The attack could be a surprise one, and if it were an air attack, a certain percentage of the planes could get through to targets here just as our planes could get to critical targets in enemy territory.

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*For brevity: Radef.

4. All important production, population, military, and harbor centers would be critical targets.

5. Twenty-megaton thermonuclear weapons would be used. (This is a change from earlier assumptions; in the beginning only the 20-kiloton A-bombs were considered in defense planning.)

Effects of the New Weapons

The effects of the 20 kiloton A-bomb have been described in detail. The force of the blast wave of the hydrogen bomb may be 1,000 times as powerful as that of a fission bomb, but the blast and incendiary effects of the hydrogen bomb would be only about ten times as great as those of a fission bomb. The radiation hazards would be increased over the nominal A-bomb but not greatly except for the amount of fall-out produced in surface or subsurface bursts.

Residual Radioactivity

The residual radioactivity with the larger thermonuclear weapons may spread downwind for distances varying from 50 to 300 miles, depending upon the winds. The fall-out path could vary from 10 to 50 miles or more in width.

The hazard of radioactivity could extend out as far as 20 miles in all directions from the bomb center.

Some of the changes in planning following the announcement of the thermonuclear weapons was that about 75 per cent of all first aid equipment should be stored more than 20 miles and preferably 40 miles from the center of critical targets. Also mobile improvised hospital units should be located where feasible, more than 20 miles and preferably 40 miles from the critical target areas.

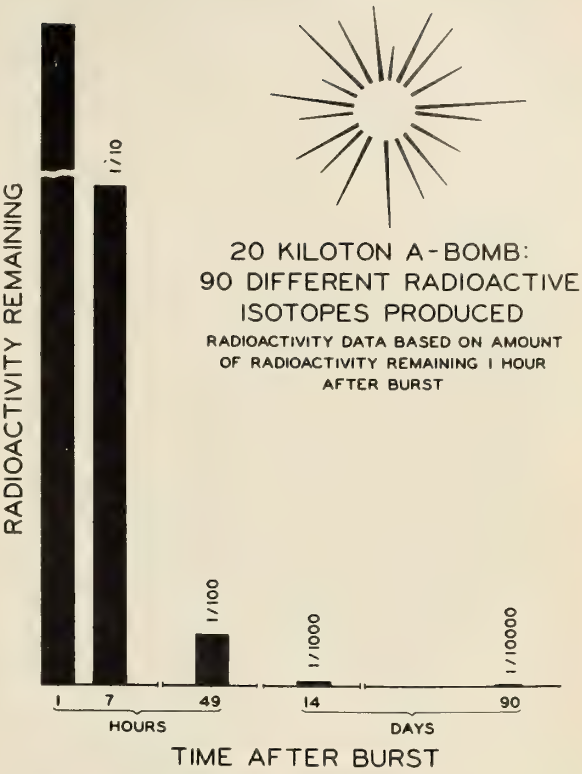
Central Centers

The Radiological Safety Advisory Committee surveyed the state and recommended that, since no single fixed location within the state could be considered safe at all times, there should be at least three control centers established in the northern part of the state and preferably four in the southern part of the state. It was also recommended that mobile communication buses could be used if necessary for this purpose. The purchase of five additional communication buses was recommended to augment the two already in use. Adequate communications are essential to any successful civil defense program and this has been repeatedly demonstrated both in military operations and in natural disasters which have occurred.

Cost of the Program

Since January 1951, approximately $1,100,000 has been spent on radiological defense in California. Almost $400,000 of this sum was spent on radiation detection instruments. Instruments for both training and actual field use have been secured.

Chart 9



Four thousand one hundred and seventy monitoring instruments have been purchased and most of them have been delivered. Five hundred of the instruments have been obtained for use in fixed and improvised hospitals. (Hospital facilities and trained medical personnel will represent our most valuable resource subsequent to an attack. These must not be contaminated with radioactivity from the clothing or by persons coming into the area.)

Sixteen mobile radiological laboratories have been purchased. They are completely self-contained, mobile, radio-chemical laboratories, designed to provide accurate measurements of radioactivity in food, water, air, and soil. They also carry their own communications. (See Figure 4.)

One hundred and five radiological monitor squad trailers were designed by the division staff and constructed at Folsom prison. Each trailer carries all the equipment necessary for a squad of 20 radiological monitors. The equipment includes radiation detection instruments, mobile communication equipment and other materials necessary for efficient squad operation.

How a Problem in Radef Is Handled

Determining the situation with regard to radioactivity can be accomplished as follows:

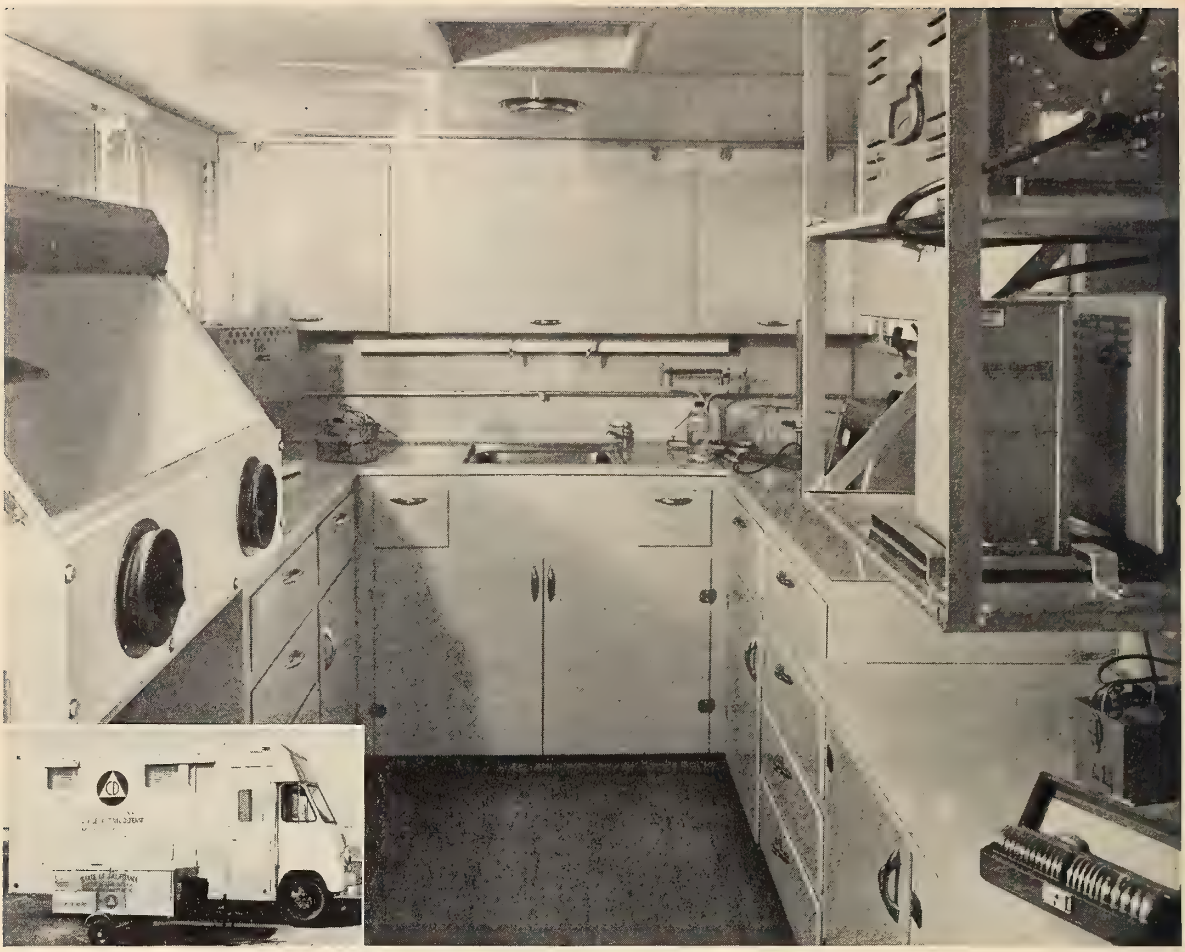


Figure 4.—Mobile radiological laboratory.

1. The protective services of the state, namely, law enforcement, fire control, engineering and utilities, have been given 1500 radiation detection instruments. Selected personnel of those services have been carefully trained in use of the instruments and they have them immediately available in their cars.

In the event of an attack the selected persons would determine the immediate situation in their area and transmit this information to evaluation centers which, in turn, would transmit the information to the designated authorities. This would be the first source of information, since these persons are on duty daily and are usually well dispersed.

2. The volunteer monitors would take over the basic monitoring work as soon as possible. They will be invaluable in the immediate post-attack period and also in the clean-up operations which will be necessary for some time afterward.

The protective services would continue to keep their instruments for use as necessary for their own protection and information while they were busy carrying out their assigned tasks.

3. The personnel of the 63 Division of Highways Maintenance stations have been trained in monitoring and have been issued instruments. Since they are scattered over the state and have fixed installations with instruments immediately available, much valuable information can be obtained from them.

The above plan should be an efficient practical manner in which to obtain enough data to be of value in estimating the fall-out problem and also problems peculiar to any one area.

Training Program

Emphasis has been placed on training in radiological defense. Training courses conducted by the division staff during 1954 alone provided 35 volunteer monitor instructors, 57 protective services monitor instructors, and 23 mobile radiological laboratory specialists. Also, three training courses were conducted for control center and evaluation personnel.

The volunteer monitor instructors who were instructed and assisted by the division staff, in turn trained some 400 volunteer monitors and 5,000 protective service monitors during the year.

The Radiologist

The radiologist because of his general medical training, his special knowledge of radiation biology and of the clinical effects of radioactivity, will be a most valuable asset to civil defense. He should be encouraged to play an increasingly greater role in civil defense.

Decontamination

The residual radioactivity consists of beta and gamma-emitting fission products and induced radioactive materials. Also alpha particles may be emitted by unfissioned material.

The residual contaminating radioactivity may produce two kinds of hazard. (1) If it remains outside the body and produces localized injuries or it radiates large areas of the body, and (2) If the radioactive material is inhaled, ingested or enters the body through open wounds.

The following are rules and notes applicable in the case of persons and/or areas suspected of being contaminated:

1. Thoroughly cleanse the body and especially the hair, axillae, groins, fingernails and feet and hands (repeated scrubbings if necessary).
2. Monitor suspected areas of contamination.
3. Put on clean clothing.
4. Evacuate affected personnel.
5. Thoroughly cleanse all wounds. Leave wounds open after thorough debridement.
6. All packaged and canned foods may be used if outside containers are cleansed.
7. Even if drinking city water, boil it. The boiling will not remove radioactivity but will make it sanitary. There will be little danger of radioactivity in the water stored in the mains. It should be monitored, however.
8. Neither gamma radiation nor the external radiation from alpha and beta emitters will cause an individual to become radioactive.

1955 Objectives of Radef

With the advent of the thermonuclear weapons, some of the planning and problems to be considered are as follows:

1. Reevaluate previous plans for distribution of instruments and equipment.
2. Revise training goals, particularly with regard to support regions.
3. Increase emphasis on meteorological studies and information.
4. Attempt to obtain additional means of securing immediate post-attack radiological information.
5. Provide assistance and advice for overall Civil Defense planning, as well as for individual civil defense services regarding the atomic and thermonuclear weapons and associated radiation hazards.

III. The Diagnosis and Management of Radiation Injuries

As was stated previously, when either the H-bomb or the fission type of A-bomb in which uranium-235 and plutonium-239 are used is exploded, there is a sudden release of energy in terms of blast, intense heat and light and highly penetrating invisible radiations.

The initial nuclear radiation consists of gamma rays and neutrons. The residual ionizing radiation results in a persistence of radioactive substances, emitting alpha and beta particles and gamma rays.

The initial nuclear radiation, which consists of gamma rays and neutrons, is produced within the first 90 seconds after fission occurs. The two together represent about 5 per cent of the total released nuclear energy.

The residual nuclear radiation which remains after the initial 90 second period consists of the following: Alpha particles from unfissioned material, beta particles and gamma rays from fission products, and materials made artificially radioactive by neutron bombardment.

It must be emphasized that all radiation is damaging to some degree. If the amount of radiation is slight and only a small area of the body is affected, the body cells may recover to such an extent that no obvious damage or cell injury has occurred. For example 5,000 roentgens may be directed all in one treatment to a skin cancer that is one or two centimeters in diameter without doing much injury. However, if 400 roentgens were given to the entire body in one treatment, about 50 per cent of the persons receiving that dose would be dead within 30 days.

It has been estimated that the human body can tolerate a weekly dose of 0.3 roentgens for many years without detrimental injury. Every possible precaution is taken, however, in peaceful pursuits to ensure that no radiation or as little as possible reaches a person in the course of his work with radioactive materials or x-ray generating equipment.

With proper precautions, gamma ray and roentgen rays can be administered to persons who have cancer without producing irreparable tissue injury.

The ionization of tissues or the absorption of the energy from the radiation by the tissues results in the alteration of cell function or in cell death. The effects are largely upon the cell nuclei, then on the cytoplasm; then chromosomal changes, reduction in mitoses, inhibition of enzyme production, changes in cell membrane permeability and other changes. The effects of radiation are greatest during the period of reproduction of the cells. There is still much to be learned about radiation biology, but it is

TABLE 2.—Summary of clinical symptoms of radiation sickness

Time After Exposure	Lethal Dose (660 r)	Median Lethal Dose (400 r)	Moderate Dose (300-100 r)
First week	Nausea and vomiting after 1 to 2 hours.	Nausea and vomiting after 1 to 2 hours.	No definite symptoms.
	No definite symptoms.	No definite symptoms.	
Second week	Diarrhea. Vomiting. Inflammation of mouth and throat. Fever. Rapid emaciation. Death. (Mortality probably 100 per cent.)		
Third week		Beginning epilation. Loss of appetite and general malaise. Fever. Severe inflammation of mouth and throat. Pallor. Petechiae, diarrhea, and nosebleeds. Rapid emaciation. Death. (Mortality probably 50 per cent.)	Epilation. Loss of appetite and general malaise. Sore throat. Pallor. Petechiae. Diarrhea. Moderate emaciation. (Recovery likely unless complicated by poor previous health or superimposed injuries or infections.)
Fourth week			

definitely known that the absorption of energy from radiation may produce temporary or permanent injury to one or more biological systems, depending upon the dose given.

The sensitivity of tissues to radiation is usually in the following order: Lymphoid cells, polymorphonuclear and eosinophilic leukocytes, bone marrow, the reproductive organs, salivary glands, skin, mucous membranes, endothelial cells lining the blood vessels and the peritoneum, connective tissue, muscle, bone and nerve cells. The nerve cells are considered to be the most radioresistant.

The radiation changes produced may be early or late. They may be confined to small areas of the body, or, brought about by radiation of the entire body or by the inhalation or ingestion of radioactive materials. Total body radiation in large doses at one time may produce the acute radiation syndrome and cause death in a short time. However, total body radiation may be given in small doses in the treatment of certain types of cancer with little evidence of harm. Similarly radioactive materials may be taken by mouth, with little harm, in the regulated treatment of certain diseases. On the other hand, it may be taken accidentally in harmful doses such as might occur from continuous and repeated exposures to radioactive contamination from the fall-out.

The injudicious use of x-rays and radium by many of the radiologists in the early days resulted in many radiation "burns" or permanent injuries. Also the studies of the radium dial workers who later died of bone sarcoma have been of considerable value in learning about the ultimate effects of the prolonged absorption of the energy of radiations. The probable early effects of acute radiation doses over the whole body are as follows:

Acute Dose	*Probable Effect*
0-25 r	No serious injury
25-50	Possible blood changes but no serious injury
50-100	Blood-cell changes, some injury, no disability
100-200	Injury, possible disability
200-400	Injury and disability certain, death possible.
400	Fatal to 50 per cent of subjects in six weeks.
600 or more	Fatal within a few days to two weeks.

With the acute radiation syndrome (clinical syndrome of radiation sickness) nausea, vomiting, and diarrhea usually occur the first day or two after lethal exposures. Increasingly severe diarrhea, and general malaise and fever follow. The patient may also be relatively free of any severe symptoms for the first few days. Secondary infection is a common terminal symptom. Pharyngitis with symptoms referable to the upper respiratory tract may also occur. In 10 to 14 days epilation may be noted. The exposed person may die from failure of the hemopoietic system within the sixth week, but the length of life and the severity of the symptoms will vary inversely with the amount of exposure to the radiation. A summary of the clinical symptoms of radiation sickness is presented in Table 2.

Diagnosis

The differentiation of individuals suffering from the acute radiation syndrome or from varying degrees of radiation exposure from those suffering simple shock or combination of trauma and shock, is difficult in the early stages.

If there is leukopenia or a drop in the lymphocytes, the nausea and vomiting, shock and other symptoms are probably not a reaction to merely being in a bombed area but to radiation exposure. If recording monitoring instruments are available, the information they give will be a great help in evaluating the dosage received and the probable prognosis. If all of the individuals in a given area have leukopenia, this will be significant of radiation exposure. Epilation will also be significant of large dosage and of grave prognosis.

Treatment

Although there is a great deal of research under way to find a specific treatment for radiation injury, none has been found. In case of attack, a decision will have to be made whether persons with evidently lethal dosage should receive treatment in the face of overwhelming numbers with little or no exposure to radiation needing all the supplies available. This refers to burns and other trauma.

The following points are of great value in the treatment:

1. Complete rest and food and water are important. The radiated individuals become easily fatigued, and with lowered resistance they are subject to infections.

2. Since infection is common and with a greatly lowered resistance, antibiotics will be of considerable value in patients with sublethal exposure.

3. Transfusions will be of value for persons who have had sublethal exposure, in order to carry them along until the bone marrow recovers the capacity to manufacture enough blood to sustain life.

4. Intravenous feedings for persons who are vomiting and debilitated and unable to take nourishment by mouth.

Individuals react differently to ionizing radiation, and what may be a lethal dose for one may not be for another.

In general, for persons having acute symptoms of diarrhea and bleeding from irradiation within the first two weeks, the prognosis is poor, as it is also for those with purpura and extreme leukopenia in the fourth to sixth week. However, the longer the delay in the onset of evidence of extreme bone marrow damage, the better the prognosis and the more value to be obtained from supportive treatment.

In general, also, treatment for acute radiation injury will not be begun until about the second week, since persons who die sooner probably received dosage for which no treatment would help anyway.

There was very little water, food, shelter or blood, and no antibiotics or general nursing care, for the Japanese who survived the A-bomb blasts. If even good first aid measures had been available, many who died might have been saved.

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ACKNOWLEDGMENT

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Civil Defense

Proper Handling of Mass Casualties During a Major Disaster

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CARE OF THE WOUNDED is a very important phase of Civil Defense. In connection with the proper planning and preparation for the treatment of mass casualties during a major disaster we must consider the problems which will obtain under the worst possible conditions—that is, enemy attack with thermonuclear weapons. This will present the new problems of the radiation syndrome and residual radioactivity in the areas about the site of the target. The number of dead and injured, in a heavily populated region, will be in the hundreds of thousands. If we can cope with this emergency, problems presented by disasters of other types will be of a relatively simple nature.

There will be a great shortage of trained personnel, supplies and facilities necessary for the proper care of this huge number of casualties. Consequently the medical and health services will utilize all physicians, dentists, veterinarians, nurses and technical health personnel available. Conditions under which treatment is given will of necessity be primitive. It should be realized that the specific treatments of various types of casualties will depend upon the supplies and equipment available in the civil defense medical units and first aid stations. These supplies and equipment may not permit a physician to treat patients as he is accustomed to do in his regular practice. Uniform minimum procedures must be followed. Speed in treatment is essential. The use of supplies must be kept to a minimum.

Before medical and health personnel mobilize or enter the damaged area following an atomic or thermonuclear explosion, clearance must be obtained from Radef.* This may be given within the matter of minutes or perhaps not for days. A time lapse of the latter magnitude will result in the death of a large number of wounded from causes which would have been remedial if seen early.

The specific function of first aid stations includes receiving, sorting and classifying casualties according to the nature and severity of the injuries; decontaminating casualties; administering first aid and giving initial professional care; preparing, maintaining and transmitting casualty records and reports; routing of casualties; maintaining medical and surgical supply support of all first aid system groups; and later serving as outpatient stations for continuing or following care of sick and injured people.

The casualties should be sorted immediately upon arrival at the first aid station. The physicians at the station should:

(a) Quickly sort casualties into the following three groups:
  1. Hopelessly injured
  2. Seriously injured
  3. Injured

(b) Start emergency treatment for seriously injured first

(c) Supervise treatment generally

(d) Direct disposition of doubtful cases

The physician's judgment in the disposition of casualties should be influenced by the general condition of each casualty, need for immediate resuscitation, extent and type of injuries, time required for emergency care, possibility of delayed treatment, presence of chemical or radiological contamination, and other factors. Many ambulatory casualties will have only slight injuries and should not be permitted to interfere with the care and prompt movement to hospitals of seriously injured casualties. The following priority schedule, or a similar one, should be established to control the flow of casualties into and out of a first aid station and for transportation to hospitals:

(a) Immediate life saving and rapid first aid care initiated at first aid stations and continued at hospitals, such as resuscitation and treatment of the following: severe hemorrhage, severe penetrating and crushing injuries of the chest and abdomen, and badly crushed and torn extremities.

(b) Immediate resuscitation, then rest, where no surgical operation or other care is required to save life within a few hours, including treatment for shock, small chest penetration, and the need for artificial respiration or administration of oxygen.

(c) Delayed definitive treatment initiated at stations and continued at hospitals for severe burns, compound fractures, joint penetrations and severe face or superficial wounds.

(d) First aid, if needed, with transportation to hospital for specialized treatment, for minor head injuries, eye and ear injuries, vascular injuries and miscarriages.

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*Radiological Defense Service.

(e) Delayed first aid and release to home or work, for contusions, lacerations, sprains, simple fractures and minor burns.

Radiation casualties without injuries such as those listed above should be evacuated to designated hospitals or outpatient services after decontamination. Radiation casualties with injuries falling into the above categories should be decontaminated and handled according to established priority. Casualties with chemical or biological contamination, with or without injuries, should be handled according to the priority established for injuries after being decontaminated and/or isolated. Where feasible, persons should be monitored before they enter the first aid station and, if found seriously contaminated, exposed body surfaces should be washed and clothing discarded.

Before instituting treatment of wounds a rapid thorough examination and questioning of the casualty, if possible, is important for the recognition of multiple injuries. It is easy to overlook injuries in the seriously wounded unless the clothing is removed. This knowledge of multiple injuries makes possible the differentiation between those requiring primary and secondary consideration.

Emergency treatment of casualties in any disaster is begun in the field by the rescue workers at the scene of injury. Treatment is limited to resuscitation and first aid measures. If narcotics or large doses of sedatives are given to "walking wounded" who are expected to make their own way out of the disaster area, the majority of them will be converted to litter cases. Most emergency treatment will be carried out in the first aid station. This will consist of providing adequate airway; controlling hemorrhage; relieving pain and treatment of shock with plasma, plasma volume expanders or electrolyte solutions; closing sucking chest wounds; applying splints and dressings; administering tetanus prophylaxis; and starting chemotherapy. Casualties will then be evacuated to nearby existing or improvised hospitals for continued resuscitation and surgical treatment.

SHOCK

Shock can be expected after any severe injury. Except after massive hemorrhage, the fully developed picture of peripheral circulatory collapse associated with a fall in circulatory blood volume may not appear for several hours. Consequently the factor of time is of paramount importance in treatment of shock. The longer shock persists, the greater is the danger to the vital organs from anoxia and the more difficult it is to reverse the process and insure recovery. Shock may be recognized by: cool moist skin, pale and cyanotic lips, progressive weakening of pulse, falling blood pressure, thirst and restlessness, collapsed peripheral veins, and depression of urine formation. The majority of cases of shock are the result of hemorrhage, burns, trauma or dehydration and are characterized by reduction of blood volume. The rapid restoration of blood volume is the main goal of therapy in such cases.

The steps to be taken in the treatment of wound shock are as follows:

Stop hemorrhage. External bleeding can usually be controlled by pressure bandage or by maintaining constant pressure. Tourniquet is rarely needed. If used, apply just above the site of the hemorrhage and release after 45 minutes and reapply only if bleeding recurs. Tag and print T on the forehead. Clamp and ligate bleeding vessels whenever feasible.

Maintain adequate airway. Tracheotomy should be performed whenever there is doubt as to the adequacy of respiratory exchange and especially in the case of casualties with severe head injuries.

Elevate foot of bed or stretcher 12 inches. This may be contraindicated in head injuries, pulmonary edema or chest wounds if severe respiratory distress is present.

Conserve body warmth. Apply blankets above and beneath the patient except in very hot environment.

Relieve pain and anxiety.

Restore blood volume. This is the most important step in the treatment of shock, and whole blood is best suited for this purpose. When whole blood is not available plasma and plasma volume expanders such as gelatin, dextran and polyvinylpyrrolidone (PVP) may be used to sustain an adequate, but not necessarily normal, blood volume and blood pressure. When plasma and plasma volume expanders are given after massive hemorrhage, anemia will persist and will necessitate transfusion as soon as blood is available. Intravenous infusion of saline solution is even less effective than plasma and plasma expanders in restoring blood volume, for it does not replace the water-holding power of lost plasma protein. However, it may be the only fluid available and may sustain circulation up to an hour while blood, plasma or plasma substitutes are obtained.

WOUNDS IN GENERAL

There are two kinds of wounds—open and closed. The open wound is visible. The closed wound, for example a ruptured spleen, liver or intestine, may be easily missed and more immediately fatal. None of the open wounds are clean wounds. Due to the inevitable time lag between occurrence and treatment in a major disaster, all these wounds must be considered as infected and treated as infected. The type of wound influences the method of treatment. *Abrasions* for the most part will not be treated due to lack of personnel, facilities and supplies and because of more important types of wounds requiring care. With *incised wounds* there is usually little or no damage to surrounding tissue. They should be washed with soap and water and a dressing applied. Primary suture should be performed only on wounds of the face or scalp. *Contused and lacerated wounds* require excision of damaged tissue in addition to removal of contaminants by gently washing with soap and water and irrigation with saline solution. *Penetrating wounds* present the problem of foreign bodies, in addition to contamination and damaged tissue, creating a still further demand for excision. In *perforating wounds* of an extremity it is usually advisable to excise the skin and subcutaneous fat at each opening and not to excise the remainder of the tract and muscle unless pronounced hemorrhage is present. The tract may be washed through with normal saline solution if this is possible without exerting pressure. *Avulsed wounds* present a grave problem because frequently the flap dies unless treated as a graft. The procedure is to cut away all fat from the free skin flap and remove the normal exposed fat down to the deep fascia and resuture the skin in place as a full thickness graft.

Debridement or, better, *excision of the wound* means enlargement of the wound so that all tracts are laid open, sharp excision of all devitalized tissue, removal of all foreign bodies and hemostasis; the whole being accomplished with gentleness under constant irrigation with normal saline solution. The excision of the wound requires time, effort and extreme carefulness. Anesthesia is necessary. The wound should be packed with gauze and the surrounding skin cleaned up to the margin without further contamination of the wound. The skin is shaved and scrubbed with soap and water; grease is removed with benzine or ether. The pack is removed from the wound and any evident small foreign bodies are taken out. The wound surface is then scrubbed thoroughly, generally with soap and water with a free irrigation with normal saline solution. Excision is then commenced and an attempt is made to keep the excised area in one piece. Preserving healthy skin is important. All devitalized muscle is cut away, tendons or nerves are washed if necessary but not sacrificed, and soiled periosteum is cut away. Portions of bone which have dirt ground into them are cut away sharply. Bone fragments which have the slightest attachment to soft parts should be left in unless they are too badly contaminated.

All hematomas encountered must be evacuated. Contaminated blood clots and hematomas are comparable to masses of devitalized tissue as far as obtaining the desired result from excision is concerned. They constitute an excellent culture medium. Whenever bleeding does not stop readily and completely with the use of pressure by warm gauze compress, the vessels should be ligated with fine suture material.

The wounds are left wide open and packed. This does not mean stuffing in large amounts of gauze under pressure as for uncontrollable hemorrhage. Rather, one or a few layers of fine mesh dry gauze are laid between the raw edges of the tissue, particularly separating any deep crevices. The idea is that there shall be no spaces shut off so that fluid and blood may collect as a medium for the growth of bacteria. Leaving any dead space in either sutured and unsutured wounds is to be avoided. The wounds may then be closed after five to ten days, when there is no evidence of infection, in a hospital. Following dressing of the wound, a smooth compression bandage is applied. This will help prevent edema and formation of dead spaces. Immobilization is of great value in injuries of soft parts as well as in fractures of bone. Healing is more rapid and timely and the patient more comfortable. Scar tissue is less and it is a prophylaxis against infection. In minor wounds, adhesive plaster and bandages are sufficient. In extensive muscle damage or bony injury it is of primary importance to have as complete soft part immobilization as can be obtained, that is, by plaster of paris splints or traction. Otherwise, each movement of the part is liable to mobilize or spread infection.

Some patients will be brought in with badly infected wounds. The wounds should be inspected, adequate drainage provided and antibiotics started at once. If true gas gangrene is present (clostridial myositis), the treatment will vary with the stage of the infection and the supplies available.

HEAD INJURIES

If the casualty presents a compound fracture with or without depression and with evidence of underlying brain injury as indicated by progressive loss of consciousness and lateralizing neurological signs, operation becomes mandatory. However, this cannot be performed until full neurosurgical facilities are available. It will be the responsibility of those in the first aid station to:

1. Maintain circulation by treating for shock.
2. Provide an adequate airway. Perform tracheotomy if necessary.
3. Control temperature if above 102° F. This may be done by removing clothing, applying wet packs and/or giving aspirin per rectum.

4. Maintain adequate fluid balance.
5. Transfer to a hospital as soon as possible.

EYE INJURIES

Eyes may be irrigated with water for chemical burns. For lacerations of the eyeball, penetrating wounds due to foreign bodies, etc., sterile dressings should be applied to both eyes and the patient evacuated to a hospital.

CHEST INJURIES

Injuries to the chest may be classified as rib fracture, crushed chest, penetrating and perforating wounds.

Rib fracture may be single or multiple. Usually the fourth to tenth ribs are involved. In treatment of mass casualties, strapping will probably be the only method possible in the early stages. However, this is unphysiologic because it reduces respiratory movement. Narcotics may also be given, but doing so reduces the cough reflex. Wherever possible, the treatment of choice would probably be intercostal nerve blocks which usually consist of the injection of 3 cc. to 5 cc. of 1 per cent local anesthetic agent at the angle of the rib, and injection for each rib fractured.

Pneumothorax requires watchful management, especially if one does not employ some method of constant removal of air. If closed, pneumothorax is usually due to a laceration of the lung or to bronchopleural fistula. The air may be removed by needle for diagnostic purposes, especially in doubtful cases, and especially if the patient is having respiratory distress. This nearly always gives the patient relief. If the improvement is only temporary, an intercostal catheter should be inserted in the sixth or seventh interspace in the posterior axillary line and attached to a water seal drainage bottle or, if that is not available, to the finger of a rubber glove after removal of the tip in such a way as to form a flutter valve. The lung must be expanded as soon as possible in these conditions because if expansion is delayed complications occur. If open pneumothorax, or sucking wound, is present, one should occlude the wound with a large firm dressing and then insert a thoracotomy tube and connect it with a water seal drainage bottle or flutter valve. Definitive treatment to the wound should be given only after the patient's condition improves. Crush injuries of the chest are those in which the wall is "staved in" so that it loses its rigidity and becomes a "flail" chest. This usually occurs from compression injuries of the thorax where adjacent multiple ribs are fractured, at least in two places, especially anteriorly, and the sternum loses its mooring. Paradoxical respirations occur along with pain. Intercostal nerve block relieves the pain and makes the respirations easier. Rib immobilization by means of traction, using towel clips clamped about the rib ends and connected to an overhead frame with enough weight (about three to five pounds) to stabilize the chest, will improve respirations.

Penetrating and perforating wounds of the chest. In treating these wounds, one must first combat shock, then stop hemorrhage and, thirdly, tamponade sucking wounds. Clean wounds may be closed; ragged wounds should be debrided. If shock should continue in spite of good treatment, one should look for progressive bleeding in the chest, tension pneumothorax, obstructed airway, great vessel injury or cardiac tamponade. Early thoracentesis is important for the diagnosis and treatment. If there is significant amount of air or blood obtained by aspiration, then under-water tube drainage should be instituted. This is a good guide as to whether or not the bleeding is continuing and also gives an accurate estimate of the amount of blood lost. Most often the bleeding that occurs is from the intercostal or internal mammary arteries. It may require ligation. Obstruction of the airways may be prevented by placing the unconscious patient on his side or by lowering the head of the table. If obstruction is suspected, tracheotomy should be performed. Great vessel injury is more likely to result from wounds above the clavicle or sternum, and injury of this kind necessitates early operation.

Cardiac tamponade can cause shock. In the diagnoses of cardiac tamponade, one should consider the position of the wound of entrance, neck vein distention and muffled cardiac sounds. Immediate pericardial aspiration is required and if blood is obtained, the diagnosis is confirmed. Aspiration may be performed from below upward at the angle between the costal cartilage and the xyphoid process or directly through the fourth or fifth intercostal spaces just to the left of the sternum. If there is general improvement after aspiration, the patient can be treated conservatively and observed closely. If shock is unchanged after a successful tap, or if improvement is only temporary, then surgical intervention with repair of the wound is indicated.

The semi-sitting position is tolerated best by patients with chest injuries. Morphine should be used in small doses. Oxygen, if available, is urgently indicated where circulatory collapse is present.

ABDOMINAL INJURIES

Injuries of the abdomen if open or penetrating should be treated by applying a simple massive sterile dressing. No attempt should be made to replace viscera, remove foreign bodies or manipulate or explore the wound. Treatment for shock should be given, a nasogastric tube should be inserted, if available, and chemotherapy started. Casualties with nonpenetrating wounds of the abdomen should be treated for shock and given nothing by mouth. Patients with abdominal injuries have high priority for evacuation to a hospital.

FRACTURES

A casualty with a fracture may present respiratory embarrassment, hemorrhage and shock. These complications of wounds demand first attention. One should depend on pain, loss of function or deformity for the emergency diagnosis of fracture and should not try to obtain crepitus or false point of motion. If fracture is suspected, the casualty should be treated as if the diagnosis of fracture had been confirmed.

Immobilization is the basic requirement in the treatment of a fracture. Casualties with fractures of the skull should be transported lying on the abdomen, with the face turned to the side to prevent aspiration of vomitus or blood. If the fracture is in the jaw, attention must be given to maintaining an adequate airway. Temporary immobilization can be accomplished with a circular bandage passed beneath the jaw to the top of the head, and held in place by another bandage from the forehead to the occiput. The teeth should not be held tightly together by the bandage if there is any reason to anticipate vomiting.

Meticulous precautions must be observed in moving a person suspected of having spinal injury, and additional care is imperative to stabilize an injured cervical spine. The neck must not be bent. The head must be maintained in a neutral position. This is best managed by having someone place his hands on either side of the casualty's head with his fingers supporting below the occiput and under the mandible and exerting slight but gentle traction. A board or stretcher is slid under the patient and the head, face up, is braced to prevent side to side motion. Casualties with fractures of the dorsal and lumbar spine are transported with the back up, on a board, with the head turned to the side. If there is the possibility of a broken neck, the patient should be transported as though fracture of the cervical spine were a certainty. If fracture of the spine is suspected, the motor and sensory status of the lower extremities should be noted. Casualties having progressive paraplegia should be evacuated immediately to a hospital for definitive surgical therapy.

The application of a sling with the elbow at a right angle and the binding of the upper arm to the body with a circular bandage will immobilize fractures of the shoulder, arm and elbow. Pieces of wood, metal, newspapers or cardboard may be utilized to splint fractures of the forearm, wrist and hand, which are then placed in a sling with the elbow at a right angle. In treatment of fractures of the lower extremity, traction with a Thomas-type splint is best and should be used for all fractures from pelvis through ankle. However, an adequate supply of these splints will not be available and the materials at hand will have to be used. A long wooden board placed laterally from the axilla to beyond the foot with another board from the buttock to the heel will keep the fractured extremity at rest. In cases where speed is essential and no material for a splint is immediately available, the two extremities may be bound together. If traction is applied, it should be sufficient to immobilize the fracture but not enough to reduce it. Care must be taken in the application of ankle or instep hitches to prevent pressure necrosis. They should be applied over shoes when possible.

A person with a fractured pelvis should be placed and kept on a rigid support, lying on his back. If the injury is severe, the thighs and legs should be bound together. The color of the urine should be noted, a specimen withdrawn by catheter if necessary. If the urine is bloody a catheter should be strapped in place as a drain.

Compound or open fractures should be treated as closed fractures except that the wound or protruding bone should be covered with a sterile dressing. A note should be made on the casualty's medical tag that the bone protrudes through the skin, since it may be pulled in by traction.

CRUSH INJURIES

Casualties with crush injuries should be treated for shock, given nothing by mouth, and given high priority for evacuation to a hospital.

BURNS

A large percentage of the casualties from explosion of fissionable materials will have sustained burns. These will be flash burns due to the explosion of the bomb and also deep and extensive flame burns of individuals trapped in debris during the ensuing fires. Burns occurring in such circumstances will often be associated with lacerations, crush injuries, or fractures which are sometimes more serious than the burn. Radiation sickness will also complicate the management of many patients.

At the first aid station a rapid thorough examination of each burned patient should be made and information recorded as to the extent and severity of the burn. Too much time should not be spent initially trying to determine the exact degree of the burn, except where necessary to decide whether there is a chance for recovery. The presence of respiratory tract burns, and the location, extent and degree of surface burns should be recorded on the casualty's emergency medical tag with a quick sketch of the burned area. Associated injuries should be carefully assessed and noted. The agent causing the burn (fire, flash, steam, chemical, electricity, etc.), if known, should also be recorded.

In order to best utilize the available resources, burn cases must be sorted according to severity and the care required. These casualties may be grouped as follows:

(a) Hopelessly burned casualties.
(b) Casualties with severe burns who may be saved by vigorous therapy.
(c) Casualties with moderately severe burns not immediately threatening life but requiring hospitalization.
(d) Casualties with minor burns suitable for ambulatory treatment.
(e) Casualties requiring only self-care.

The group considered as hopelessly burned includes all individuals with third degree burns exceeding 80 per cent of the body surface, and elderly individuals (over 70 years) with deep burns of more than 50 per cent of the body surface. Before consigning a patient to this group, the doctor must assure himself of the depth and extent of the burn and, if possible, obtain the opinion of another physician. Hopelessly burned casualties should be made as comfortable as possible and removed to areas where they will not interfere with the care of casualties who can be saved.

Casualties who can be saved by vigorous therapy are those with second degree burns involving 20 to 70 per cent of the body surface, and varying amounts of third degree burn. These casualties have first priority for transportation to hospitals.

Casualties in no immediate danger, but requiring hospitalization, are those with moderately severe second degree burns involving 10 to 20 per cent of the body surface, small areas of third degree, or third degree burns of the hands.

Casualties for ambulatory treatment in first aid stations are those with superficial burns affecting less than 10 per cent of the body surface.

Casualties requiring only self-care are those with just first degree burns and small areas (less than 5 per cent) of second degree burns. They should be instructed to treat themselves.

The successful treatment of burn casualties demands immediate initiation of an orderly pattern of management and close attention. A patent airway must be assured immediately. Tracheotomy is essential when laryngotracheal edema develops from inhalation of flame. Shock develops in from four to 24 hours after a burn due to reduction of blood volume resulting from loss of plasma-like fluid at the site of the burn. Sodium, protein and erythrocytes are lost and intense hemoconcentration follows. Blood volume must be restored. Formulas have been devised for fluid replacement. Simple rules based on severity and extent of the burn modified by the patient's clinical response are in order. This is indicated by thirst, pulse rate, blood pressure and urinary output.

For surface burns of less than 15 per cent, in the absence of vomiting and shock, oral treatment with hypotonic saline solution may be satisfactory. This solution contains a level teaspoon of salt and half a level teaspoon of bicarbonate of soda to a quart of water. This should be started gradually and increased to about one glass per hour. Intravenous fluid therapy with any available preparation should be started immediately in those patients with severe burns. Plasma, plasma volume expander, dextrose in saline, saline, or dextrose in water may be used, in that order of preference. The fluids received should be correctly recorded. The amount of fluid given in a 24-hour period should not exceed 10 per cent of the body weight.

No single routine is applicable to all burns. Choice of a method of local therapy depends upon the availability of medical supplies and personnel; the location of the burn; the presence and extent of complicating injuries, such as fractures, avulsions, lacerations, crush, etc.; the necessity for transportation; and environmental conditions. Local therapy of other severe injuries, such as major lacerations, penetrating wounds, compound fractures, injuries to large blood vessels, etc., should take precedence over burns in the initial phase. Shock always demands emergency treatment. Local debridement is minimal, consisting of the gentle removal of gross dirt. If no dressings are available, clothing should not be removed unless removal is necessary for decontamination. Burns associated with other injuries are covered with the standard burn pad (compress and bandage, gauze, field 22″ x 18″, 22″ x 35″) prior to evacuation for definitive care. Location of the wound should be noted on the casualty's emergency medical tag. All burn casualties requiring transportation should be protected with a sterile covering. Second degree burns of less than 10 per cent of the body surface with no contained areas of third degree burn are dressed with a simple sterile covering or standard burn pad. The casualty is referred to a first aid station or hospital outpatient clinic for ambulatory follow-up care. No topical medication should be applied to burns. All severe burns of the hands should be dressed with the standard burn pad. Hands should be properly splinted in the position of function and kept elevated during evacuation.

Routine tetanus prophylaxis should be given promptly to all casualties with second and third degree burns, and particularly to those with complicating open wounds. While prophylactic chemotherapy is desirable, inadequate supplies of antibiotics will make it imperative to reserve them primarily for treatment of casualties with serious established infections and, secondarily, for the prevention of infection in the more severe burns.

It must be emphasized that priority for treatment and transportation will depend largely on the judgment of the physician in charge. No hard and fast rule is set up but, in general, the following order is recommended: massive hemorrhage; chest wounds, when there are serious signs of clinical shock and anoxia; shock; abdominal wounds; burns and crush injuries; and head and spine injuries.

This discussion of the handling of mass casualties during a major disaster may seem very elementary to some, but it must be remembered that *all* physicians will have to participate in the care of these casualties regardless of specialty. In case of attack by thermonuclear weapons, facilities will not be available or organization set up so that each may practice his specialty. First aid may be the only contribution physicians can make for many days after such an attack. On considering the number of casualties, the lack of trained personnel, the lack of facilities and the lack of supplies, one wonders whether it would not be better to treat the less seriously injured first instead of the more seriously injured, in order to get them back to work as soon as possible. This thought is contrary to the ethics of the medical profession but where national survival is at stake should be considered.

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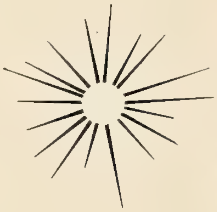

WITH WARNING

IMMEDIATELY REPORT TO YOUR CIVIL DEFENSE ASSIGNMENT

IF THIS IS NOT POSSIBLE, REPORT TO THE NEAREST MEDICAL INSTALLATION

WITHOUT WARNING

TAKE IMMEDIATELY AVAILABLE COVER. DO NOT LOOK AT THE BRILLIANT FLASH. IF IN CAR AND NO SHELTER AVAILABLE, STOP AT CURB, CLOSE ALL WINDOWS, TURN CAR RADIO ON, LIE ON FLOOR OF CAR.

AS SOON AS POSSIBLE CARRY OUT CIVIL DEFENSE ASSIGNMENT.

WHAT TO DO?

KNOW YOUR C.D. ASSIGNMENT. LEARN ALL ABOUT C.D.

Civil Defense

Emergency Treatment of Burns in Mass Casualties

MELVIN A. CASBERG, *M.D.*, Solvang

MAJOR CATASTROPHES in the past rarely have resulted in more than a few hundred seriously burned surviving patients, and yet now in the light of new devastative factors, burn casualties in the tens of thousands must be anticipated in the event of a bombing attack upon us.

A gradual build-up of an accumulating casualty list cannot be expected. Rather, should attack come, within a few seconds the medical profession would be faced with the responsibility of caring for unprecedented numbers of severely burned civilians. Under such conditions individual therapeutic preferences must of necessity be modified by those standard procedures which would permit the maximum salvage of human lives. Even though certain acceptable methods of burn therapy as applied to small numbers of cases might yield better individual results than those to be discussed herein, nevertheless the shortage of medical personnel and of hospital facilities should preclude unrestrained therapeutic latitude.

Standardization of therapy and the "assembly line" technique may be quite distasteful to the American physician who has been taught to place a premium on individualization and the application of "custom built" principles in medical care. Ideal though this practice might be in peacetime circumstances, there are conditions of national disaster under which mortality and morbidity rates would be greatly lessened by the utilization of standard therapeutic principles. Furthermore in the usual environment of medical practice the patient for the most part remains under the care of a single physician, whereas under the complications of mass casualties a multiplicity of health personnel and a variety of professional competence would carry the therapeutic responsibility for those injured. Therapy initiated at the original medical installation would be continued along the chain of evacuation with a series of professional men and women contributing to the eventual recovery of the patient. In these circumstances the need for organization and a degree of standardization is evident. The physician obviously would have opportunity to apply good professional judgment even under the most rigid medical regimentation.

Three kinds of burns may be expected in the survivors of an atomic attack: First, flash burns developed almost instantaneously from the direct intense heat of nuclear reaction; second, burns from the spontaneous ignition of clothes due to this same direct heat; and, third, burns from the more usual causes such as burning buildings and other inflammable objects secondary either to spontaneous ignition or the blast effect with leaking gas mains or damaged electrical circuits. Although the cause of these thermal burns may vary the fundamental tissue changes and the basic principles of therapy are the same as those encountered in conventional civilian practice, depending primarily on the depth and surface area of the injury.

Heat waves created by nuclear reaction travel at the speed of light and in straight lines. Thus persons under cover at the time of the explosion should be protected from thermal burns resulting from nuclear reaction or from burning clothing. Light colored clothing affords more protection than dark, inasmuch as the latter absorbs much greater amounts of heat. This phenomenon was demonstrated in the bizarre burn patterns in the skins of the Hiroshima and Nagasaki casualties who were exposed directly to the atomic flash while wearing clothing with dark and light designs.

One of the important functions of the first aid station besides that of initial emergency medical care is that of triage. Unless good clinical judgment is applied in this matter the whole control of patient flow soon bogs down. Competent professional evaluation of the injured at forward echelons will lessen the load imposed on the evacuation system by sorting out persons with minor injuries as well as the hopelessly burned casualties and establishing an evacuation priority.

Patients with superficial burns involving less than 10 per cent of the body surface are given emergency care including mild sedation, if necessary, and instructed to report for further care on an ambulatory outpatient basis. The obviously moribund and hopeless casualties are made as comfortable as possible and then segregated in an area which will not impede patient care and evacuation. Any person with third degree burns involving 70 per cent or more of

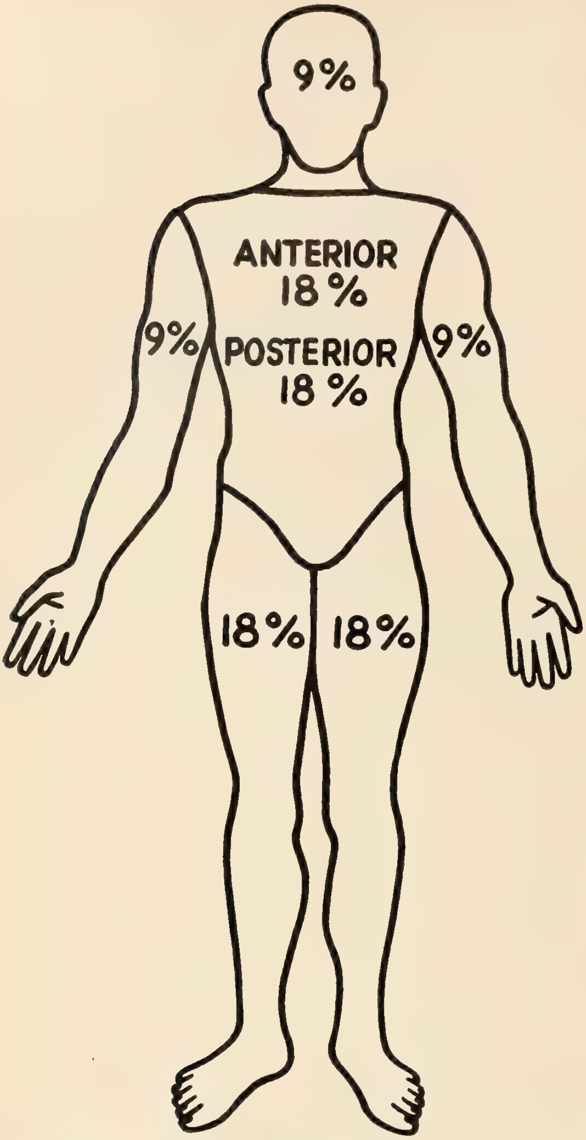

Figure 1.—"Rules of 9" for computing proportion of body surface area involved in burns.

the body surface may be considered hopelessly burned.

Activities of the first aid station are modified somewhat by the proximity and accessibility of supporting hospital facilities as well as the adequacy of medical supplies. In all events the basic treatment responsibility consists of the control of pain, protection of the wound from further contamination and the initiation of shock prevention and control. Although oversedation is to be condemned, the patient should be made comfortable. If necessary morphine sulfate is given in a 15 mg. dose. It must be remembered that poor absorption is associated with shock and repeated medication may accumulate to be released suddenly with circulatory resuscitation. Intravenous morphine will give rapid relief in circumstances in which poor circulation retards intramuscular or subcutaneous absorption.

The standard single-piece occlusive burn dressing (described later in this paper) is applied in order to prevent contamination of the wound and to make the patient transportable. If available, antibiotic prophylactic therapy is initiated, preferably in the form of procaine penicillin G, 300,000 units fortified with crystalline penicillin G, 100,000 units in oil. It is anticipated that this dose of antibiotic soon will be available in single shot disposable units especially for first aid station and field usage. The infusion of blood, plasma or plasma expanders is commenced, depending on the particular needs of the casualty and the proximity of the supporting hospital.

Rapid evacuation to more permanent facilities is of extreme importance in the stabilization of the seriously burned patient and as soon as the casualty reaches an institution where definitive care is available a planned program of therapy is inaugurated. Segregation of burn casualties in large rooms permits greater efficiency in the utilization of medical personnel.

BURN THERAPY IN THE ACUTE PHASE

The immediate management of the severely burned patient includes two therapeutic problems: First, the prevention and treatment of burn shock; and, second, the prevention of infection. The first problem involves the intelligent appraisal of erythrocyte, fluid and electrolyte balance, while the second embraces the neutralization of the hazards of infection both by the maintenance of adequate antibiotic levels and by the protection of the injured surface from further contamination. Much more important than the local care in treating a severely burned person is the immediate management of the systemic injury.

Systemic Therapy in the Acute Phase

Though there is not complete agreement as to the accuracy and efficacy of formulas proposed for estimating fluid therapy of extensive burns, nevertheless in circumstances imposed by the necessity for treatment of large numbers of casualties by personnel not always familiar with the problems at hand such a standard approach affords a common base line from which to commence a therapeutic program.

Many methods have been used in calculating replacement therapy for the seriously burned, most of which are estimates in relation to the percentage of total body surface involved. A simple and yet fairly accurate formula for determining surface area follows the rules of nine, wherein each of the upper extremities comprise 9 per cent of body surface, the head and neck 9 per cent, each lower extremity 18 per cent, and the anterior and posterior aspects of the combined thoracoabdominal trunk each 18 per cent (Figure 1). In small children the percentages for the extremities should be decreased and those for the head and neck increased. Any patient having a burn involving more than 20 per cent of the surface is likely to go into some degree of shock, and a burn of 40 per cent or more is considered extensive and severe.

The depth of burn damage may be rather difficult to estimate at first examination. The initial findings of first degree burns are those of erythema and edema, while the early formation of blisters denotes at least second degree burns and possibly third degree. Burns of second degree are those in which the inner layer of epithelium survives, permitting regeneration, whereas in third degree burns the entire epithelial layer is destroyed.

An acceptable standard formula for the conversion of burned body surface percentages into parenteral fluid requirements is that of Evans,[4] which, when applied to a man weighing 70 kg. with a 35 per cent burn, calculates the first 24-hour fluid requirement as a total of 6,900 cc. broken down as follows: Whole blood, plasma or plasma expanders (70 times 35) 2,450 cc.; electrolyte solutions as Ringer's lactate or isotonic sodium chloride (70 times 35) 2,450 cc.; and 5 per cent glucose in water, 2,000 cc. In view of the dangers of water intoxication during the acute phase, one must administer the 5 per cent glucose with caution, taking into consideration such factors as the patient's size and total fluid intake. Half of the calculated amount of whole blood, plasma or plasma expander and half of the electrolyte solution and the same amount of 5 per cent glucose is given during the second 24 hours. After the first 48 hours the electrolytes of the burned patient usually can be stabilized by adequate amounts of fluid and food by mouth. One half of the fluids estimated for the first 24 hours should be given in the first eight hours and one quarter of the amount in each of the two following eight-hour periods.

Experience gained by the traumatic shock research teams in Korea showed that in using plasma expanders best results are obtained by the administration of one unit of dextran with each unit of blood. The total volume of electrolyte solutions should rarely exceed 4,000 cc. in the first 24 hours. This same limitation holds true for the total amount of blood, plasma and plasma expanders. Where it is necessary to supply large volumes of electrolyte solutions, it is advisable to utilize physiological solutions, such as Ringer's lactate, which approximate plasma in composition.

It must be remembered that no formula can supplant sound medical judgment as to the blood and electrolyte needs of the seriously burned patient. To the astute physician basic clinical observations such as the character of the pulse, depth and rate of respiration, muscle tone, skin texture and mental alacrity, will contribute substantially to the determination of patient needs.

Numerous more or less complicated laboratory tests are available to determine blood chemistry variations, most of which would be impractical in an emergency of wide scope. Even certain of these tests, such as the hematocrit determination in the face of hemoconcentration, do not necessarily present the true blood picture. A very simple and yet quite accurate index reflecting fluid balance and the adequacy of therapy is the rate of urine secretion. The average sized adult secreting 50 cc. of urine every hour is considered in good fluid balance. An hourly secretion of 25 cc. denotes a minimal satisfactory output, while more than 75 cc. per hour for more than three consecutive hours indicates over-hydration. If the rapid administration of adequate amounts of fluid in the face of a low urine output produces no urinary response the possibility of renal failure is considered. In this case fluids are cautiously restricted lest pulmonary edema drown the patient.

As soon as the burned patient can tolerate fluid orally, he should have available a modified Haldane's solution (3 gm. of sodium chloride and 1.5 gm. of sodium bicarbonate per liter of water). An approximate and very satisfactory formula to remember is one level teaspoonful each of sodium chloride and sodium bicarbonate per quart of water. A seriously ill patient may not tolerate oral fluids the first few hours but usually will take adequate amounts during the second day. The oral administration of alkaline solutions is discontinued after the third or fourth day as soon as the electrolyte balance has been stabilized.

Moyer[7] brought attention to the danger of water intoxication which follows the oral intake of drinking water during the early critical period. Thus during the first 48 hours, despite the patient's thirst, cracked ice, cold tap water, milk and fruit juice are denied. Fruit juices are high in potassium content and may complicate electrolyte balance if administered prior to the period of normal kidney function.

Systemic therapy during the acute phase includes prophylactic chemotherapy. Procaine penicillin G, 300,000 units fortified with crystalline penicillin G, 100,000 units in oil, is given intramuscularly every 24 hours, or aqueous penicillin G, 500,000 units intramuscularly every 12 hours. Should the oral route be preferred or mandatory, then aureomycin, terramycin or chloramphenicol is given in doses of 500 mg. every eight hours instead of penicillin. Antibiotic therapy is discontinued after the first few days unless there is evidence of infection. If established infection is observed then, whenever facilities are available, sensitivity tests are carried out to determine specific therapy.

All burn casualties must receive prompt tetanus prophylaxis. This is even more critical when open wounds complicate the picture. If the patient has had tetanus toxoid a booster dose of 1 cc. is given. One may take for granted previous tetanus immunizations if the patient has had service with the armed forces. Those who have not had immunizations are given 3,000 units of tetanus antitoxin after the appropriate skin tests.

Local Therapy in the Acute Phase

There are two major therapeutic measures now accepted for the local care of burns each having the support of highly qualified scientists. One, known as the occlusive pressure dressing technique, is described by Allen and Koch[1] and the other is the open-air or exposure method advocated by Kyle and Wallace[6] of Edinburgh and supported in this country by Pulaski[8] and Blocker.[2] Most present-day forms of burn therapy are modifications of these two basic methods. No single therapeutic routine is applicable to all burns, for there are many modifying factors which will influence individual technique.

The exposure method lends itself best to injuries such as flash burns involving only one side of the body, burns of the face and burns of the buttocks and perineum. The advantages of the closed method are prevention of further contamination, a certain degree of splinting from the bandage, and transportability of the patient. Burns of the hand are pressure bandaged in the position of function for at least 48 hours. Involved knee and elbow joints are maintained in positions of extension and the involved extremity elevated. Old infected, granulating surfaces are always covered.

In the emergency of mass burn casualties the shortage of medical personnel and supplies may give little room for choice in the matter of preference of therapy and of necessity force utilization of the exposure technique in the vast majority of cases. Thus it is of the utmost importance that all physicians familiarize themselves with the application, advantages and disadvantages of this method of burn therapy.

The primary step in local therapy whenever possible and regardless of the specific after-care, is the removal of gross contamination with liquid detergent and copious saline solution irrigations. This is done with aseptic technique and precautions. In extreme emergencies due to the magnitude of the number of casualties this procedure may be impossible. In such circumstances the best that can be done is to make every effort to prevent further contamination.

The Occlusive Dressing. Emergency dressings of a single-piece type have been devised by Allen and Evans under the auspices of the National Research Council for civil defense stockpiling. These are standard pads available in two dimensions of 22 inches by 18 inches and 22 inches by 36 inches, sterile packed with roller bandages of a semi-elastic consistency and safety-pin fasteners included. They are simple to apply to limb or trunk and afford a very rapid technique of burn coverage. The outer surface of this dressing is composed of water-repellent cellulose layers covering an intermediate absorbent filling and with an inner fine mesh gauze sheet which is applied directly to the unmedicated burn surface. The dressing is then secured by the enclosed roller bandage with even, firm pressure. A similar result is obtained, though with the expenditure of considerably more time and effort, by the application of fine mesh gauze layers covered in turn by mechanic's waste held in position by elastic bandages.

The burn dressings may be left in place for one to two weeks if there is no evidence of infection. Changes of dressings are made under aseptic conditions, using light anesthesia or analgesia as the case may require. Initial use of the occlusive dressing does not preclude conversion to the open-air technique of therapy. Patients may have burns dressed for transportation and then, after arrival at a suitable medical installation, be treated by the exposure method.

Exposure Therapy. After removal of gross contamination from the injured surface, patients undergoing this form of treatment are placed on sterile sheets with the burned areas exposed to the drying effects of the air. Room temperatures are maintained at an even level so that exposure causes no chilling. Usually within two or three days a thin, pliable protective crust forms which permits easy and comfortable handling of the patient. Whenever possible if the joints of the lower extremity are not involved early ambulation is encouraged. Daily inspection of the burned areas is necessary and as cracks develop in the eschar overlying joints or as liquefaction occurs along marginal areas, these are debrided and dressed with gauze in saline solution.

In the extreme pressures of emergency, seriously burned persons should be evacuated to satellite towns and segregated in hospital wards, gymnasiums or classroom halls where with the basic necessities of potable water, cooking facilities, optimum room temperatures and freedom from insects a few physicians with adequate ancillary personnel could treat large numbers of burn casualties by the open-air method. As a word of caution, the very simplicity of the exposure method of therapy may be a danger, and, as Evans[5] warned, "become in practice a method of surgical neglect."

BURN THERAPY OF THE SUBACUTE PHASE

Arbitrarily the subacute phase may be considered as commencing with an improvement in the status of the patient manifested by stabilization of the blood chemistry and spontaneous diuresis. In the average patient with a moderately severe burn this will be observed on the third or fourth day after injury.

Systemic Therapy in the Subacute Phase

With the appearance of diuresis and the disappearance of gastrointestinal shock, an intensive dietary program is inaugurated in order to supply the anabolic needs for tissue repair. Blocker,[3] who contributed substantially to knowledge of the problem of protein catabolism in burn patients, advocated massive doses of vitamins, particularly the B complex and C, and high-caloric, high-protein forced feeding, by intragastric drip if necessary. His studies showed that burn patients enter a negative nitrogen balance with large urinary nitrogen losses which may persist for two to three weeks. Unless this is vigorously combated by adequate nutrition, tissue regeneration is retarded and resistance to infection lowered. A patient of average weight suffering from a serious burn should receive at least from 300 gm. to 400 gm. of protein per 24 hours.

Constant reevaluation of the erythrocyte content level and the administration of whole blood transfusions as indicated will correct the chronic anemia of severely burned patients. This is quite important in the overall regenerative reaction of the body systems to injury and the preparation of the burned surfaces for successful skin grafting.

The prophylactic chemotherapy initiated on the day of injury is continued for approximately seven days. After that, if infection is present, specific therapy is determined by the use of sensitivity tests.

Local Therapy in the Subacute Phase

Whether the treatment is by occlusive dressings or the exposure method the eschars over third degree burns are removed the second week and the underlying granulation tissue prepared for skin grafting by the use of saline dressings. The exposure therapy is not continued for more than three weeks even though the eschar remains intact and there is no evidence of infection. Inasmuch as the problems of skin grafting do not fall within the scope of emergency care this particular phase of burn therapy will not be discussed.

REPORT OF A THEORETICAL CASE

A man 47 years of age was attempting a last-minute evacuation of household effects and at the time of the atomic explosion was in the open, stripped to the waist, facing ground zero. He had flash burns of the surfaces exposed to the blast.

One hour later he was treated at a mobile aid station where a one-piece occlusive dressing was applied to the anterior aspect of the trunk and similar dressings encircling each upper extremity. A hypodermic injection of 10 mg. (1/6 grain) of morphine sulfate was given as well as an intramuscular injection of procaine penicillin G, 300,000 units fortified with crystalline penicillin G, 100,000 units in oil. Due to the heavy casualty load the patient did not receive parenteral fluids.

The patient arrived by truck at Suburbania Hospital, located 25 miles from ground zero, two hours later (three hours after injury). The triage team in the hospital receiving room assigned the patient to the nursing school gymnasium adjoining the hospital, this space having been designated as the hospital burn center.

Immediately on admission, because of severe pain the patient was given 10 mg. (1/6 grain) of morphine sulfate. Dextran was commenced intravenously in one forearm and Ringer's lactate solution in the other. Blood was drawn for typing and cross-matching. A self-retaining catheter was inserted into the bladder and a charting system established for the recording of hourly urine secretion and parenteral and oral fluid intake.

An hour after admission the patient was taken, with infusions running, to the improvised surgery where, under aseptic precautions, the dressings were removed and the burned surfaces cleansed of gross contamination by the use of ample saline solution irrigations. Approximately 70 per cent of the involvement was second degree in type and 10 per cent third degree. The surface areas estimated included the anterior aspect of the trunk as far inferior as the umbilicus (13 per cent), and the anterolateral portions of both arms (3 per cent), the dorsum of both forearms and hands (4 per cent), and the face and portions of the anterior surface of the neck (3 per cent). Thus the total area burned was approximately 23 per cent of the body surface. The hands were wrapped with pressure dressings, being maintained in the anatomical position. The remainder of the burned surface was treated by the exposure method.

The patient was returned from surgery to a bed remade with a sterile laparotomy drape sheet. Calculations based on an estimated body weight of 65 kg. and 23 per cent surface area involvement gave the blood, plasma and plasma expander requirements for the first 24 hours as (65 times 23) 1,495 cc., and the same amount of electrolyte solutions plus 2,000 cc. of 5 per cent glucose. Approximately half of this total of 4,990 cc. was charted for infusion during the next six hours inasmuch as four hours and a half had already elapsed since injury.

Because of previous immunization during service with the armed forces the patient was given 1 cc. tetanus toxoid booster injection.

The first hour after catheterization the urinary secretion was 15 cc. but by the second hour this had risen to 22 cc. and by the sixth hour to 45 cc. Up to this time the patient had received 500 cc. of dextran and 500 cc. of whole blood plus 1,000 cc. of Ringer's lactate and 500 cc. of 5 per cent glucose. During the remainder of the first 24 hours 500 cc. of dextran and 1,000 cc. each of Ringer's lactate and 5 per cent glucose were infused while the urinary output fluctuated between 40 cc. and 60 cc. per hour, showing fluid stabilization.

The patient demonstrated gastrointestinal normality early in the second 24 hours and drank quite freely (2,500 cc.) of the alkaline drink (level teaspoonful each of sodium chloride and sodium bicarbonate per quart of water). Thus with a parenteral supplement of only 500 cc. of whole blood and 1,000 cc. each of Ringer's lactate and 5 per cent glucose, the urinary secretion was maintained at an adequate level. Large parenteral doses of vitamin B complex and vitamin C were added to the electrolyte solution. The daily prophylactic injection of penicillin was administered. On the second day the patient ambulated with minimal discomfort and throughout the day required only mild sedation.

On the third day there was definite urinary stabilization with a moderate tendency to diuresis. Hence the retention catheter was removed. The oral alkaline solution was discontinued and the patient placed on a high caloric, high protein (nitrogen) diet, with massive oral doses of vitamins, especially the B complex and C.

The daily routine laboratory tests performed on the fourth day revealed a decrease in circulating erythrocytes. Hence 500 cc. of blood was administered. The temperature remained normal throughout this 24 hours and there were no signs of gross infection. The prescribed diet supplemented by vitamins was tolerated very well.

The course from this day on was uneventful. Antibiotic therapy was discontinued on the sixth day. The patient was prepared for skin grafting on the twelfth day and the grafting was done three days later.

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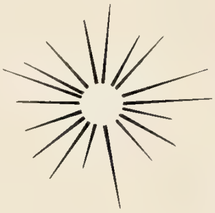

WITH WARNING

IMMEDIATELY REPORT TO
YOUR CIVIL DEFENSE
ASSIGNMENT

IF THIS IS NOT POSSIBLE,
REPORT TO THE NEAREST
MEDICAL INSTALLATION

WITHOUT WARNING

TAKE IMMEDIATELY AVAILABLE
COVER. DO NOT LOOK AT THE
BRILLIANT FLASH. IF IN CAR
AND NO SHELTER AVAILABLE,
STOP AT CURB, CLOSE ALL
WINDOWS, TURN CAR RADIO ON,
LIE ON FLOOR OF CAR.

AS SOON AS POSSIBLE CARRY
OUT CIVIL DEFENSE ASSIGNMENT.

WHAT TO DO?

KNOW YOUR C.D. ASSIGNMENT. LEARN ALL ABOUT C.D.

Civil Defense

Dealing with Hysteria in Catastrophe

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LURKING AS A POTENTIAL THREAT, even as does the embolus or secondary hemorrhage that kills a patient following successful operation, is the ever-present possibility of the explosive-destructive or the passive-jelling types of mass hysteria as a complication of any major human catastrophe. The symptoms are reasonably well established, but the why and when of an outbreak are more difficult to determine. Quick reactions may occur following any real or imaginary terror, as in the sinkings of the *Lusitania* and the *Titanic*, or in a "War of the Worlds" phantasy. Mass hysteria may develop where expected, as seen by Father Siemes at Hiroshima,[7] and yet may never develop even with apparent equivalent stress, as the Civil Defense report of Britain[9] claims of the London blitz, "There never was a trace of public panic."

Such apparent hit-or-miss contagion, plus the peculiar, always-present personal threat (it could happen to me—tomorrow or even in the next moment) tends to clothe this disorder in a mystic miasma of confusion and the average physician is generally content to concern himself with the more mundane facets of emergency work and hope for the best.

That this attitude is unrealistic is demonstrated in every such situation—since the local physician turns out to be most qualified to prevent and treat this medical problem. Stripped of its terror, cleansed of its mystery and evaluated by routine medical method uncomplicated by psychiatric jargon, panic is a pure disorder of function with a rational psychophysiological basis and equivalent rational preventive and therapeutic potentiality.

What, then, is mass hysteria or panic? It represents simply an end reaction of fear—chronic or acute, individual or group—in which higher mental control patterns are disorganized and more primitive brain areas apparently assume control.

Mira[16] classified the developmental stages of fear into six categories:

1. Prudence and self-restraint
2. Concentration and caution
3. Apprehension and alarm
4. Anxiety or anguish
5. Panic
6. Terror.

In the first three stages the patient is still in contact and retains some control. Then as fear increases, progressing almost like the action of an anesthetic, the controls are broken, and hostility, aggressive destruction, over-talkativeness and excitation develop. As true panic appears, Mira believes, physical action is directed from basal centers. The motor and parietal-occipital cortical areas must be partially functioning, however, since there is, in this phase, random motor activity with perception of gross objects, although there may be spotty or near total memory loss. This period equates roughly to the excitement phase of anesthesia.

In the terror phase, complete inhibition of the cortex develops suddenly, with stupor, apathy and inability to react to help oneself or others. Mira assumes that the word "terror" is derived from "terra" and in this state "the return to earth" has been completed. He believes such inactivation may be permanent and reported two cases of death. Cannon confirmed such terror deaths, and other reports support this theory.

Generally other authorities equate panic with Mira's stages 5 and 6—although recognition of phase 4 is vital in prevention treatment. Merloo[14] listed four phases: (1) Conscious fear; (2) chronic fright; (3) terror; (4) stupor. Merloo's phase 2, 3 and 4 equate roughly to Mira's last three groups. The American Psychiatric Association pamphlet *Psychological First Aid*[2] classifies the symptoms in a simpler fashion:

1. Individual panic (blind flight)
2. Depressed reaction (slowed down, numbed)
3. Overly active responses.

This last group generally corresponds to Mira's *Anguish* state, with the other two being easily equated.

These individual symptoms of increasing fear may also appear in groups of persons. Here each member of the crowd tends to pass through the phases of fear—slowly or almost instantaneously in patterns parallel to his associates. Again, as in anesthesia, the early stages tremendously increase suggestibility, and fear seems to produce an "hypnoidal phase" which actually makes it contagious. Indeed, mass hysteria must be considered the most contagious disease known to medicine if by con-

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tagion we mean direct communication, but without physical contact or infection. Due to the increased susceptibility to suggestion, each person mimics his nearest neighbor, and in seconds a crowd may explode into decorticate panic activity, or become a passive stuporous mass. The old notion that a crowd is reduced to the mental function of its dullest member is wrong. A crowd may well be reduced to a level far below this—to a level whereby behavior is only directed by the basal brain centers, and action is simply reflexive without a glimmering of intellectual guidance.

Such reactions en masse produce behavior patterns easily diagnosed. Father Siemes[8] described an active pattern at Hiroshima:

> . . . Among the passersby, there are many who are uninjured. In a purposeless, insensate manner, distraught by the magnitude of the disaster most of them rush by and none conceives the thought of organizing help on his own initiative.

This reaction—a milling, running mob—is the kind a lay person expects. But more common in combat experience and in scientific reports are the findings of Hersey[10] and Father Kleinsorge[8] describing the same disaster:

> Many, although injured themselves, supported relatives who were worse off. Almost all had their heads bowed, looked straight ahead, were silent, and showed no expression whatever.
>
> To Father Kleinsorge, an Occidental, the silence in the grove by the river, where hundreds of gruesomely wounded suffered together, was one of the most dreadful and awesome phenomena of his whole experience. The hurt ones were quiet; no one wept, much less screamed in pain; no one complained; none of the many who died did so noisily; not even the children cried; very few people even spoke.

Most frequently a mixed picture appears where both panic and terror states coexist as in U. S. Strategic Bombing Survey. Report on Hiroshima[18]:

> . . . There was no organized activity. The people seemed stunned by the catastrophe and rushed about as jungle animals suddenly released from a cage. Some few apparently attempted to help others from the wreckage, particularly members of their family or friends. Others assisted those who were unable to walk alone. However, many injured were left trapped beneath collapsed buildings as people fled by them in the streets. pandemonium reigned as the uninjured and slightly injured fled the city in fearful panic . . . There were physically intact teams on the outskirts of the city which did not function. Panic drove these people from the city just as it did the injured who could walk or be helped along.

Nonmilitary disasters can produce similar pictures and the Panic Control and Prevention manual[10] of the Office of Civil Defense of California describes many historical panic and terror patterns:

> *Iroquois Theater Fire*: Panic behavior caused great numbers to perish in the Iroquois Theater fire in Chicago on December 30, 1903. The theater itself never burned, but hundreds of persons were crushed to death as a result of the actions of a panic-seized audience.
>
> *Lusitania*: Crowd behavior on board the ill-fated Lusitania which was torpedoed without warning off the Irish coast on May 7, 1915, resulted in the loss of over one thousand lives. The crisis aroused a general sense of calamity and the passengers established a refuse-to-leave-the-ship pattern of reaction.
>
> *Titanic*: The White Star liner Titanic struck an iceberg south of Newfoundland on its maiden voyage to New York City on April 15, 1912. It sank within two and a half hours. However, the sea was calm and only a few of the lifeboats were damaged in the collision. The behavioral reaction of the passengers led to the unnecessary death of more than 1500 persons through needless self-sacrifice. This represents the greatest maritime disaster in times of peace.

Such behavior certainly represents a profound disturbance of function, yet the symptoms are rapidly reversible and are comprehensible on a psychophysiological basis. It is easy to explain them as regressions—returns to more primitive and childlike behavior—and to suggest a purely psychological mechanism. Recent work by Selye,[17] Basowitz and co-workers,[3] Altschule[1] and others too numerous to mention has certainly demonstrated, however, an interrelationship between stress and body physiology that cannot be overlooked. Stress, acute or chronic, produces specific physiologic changes in every tissue and body cell. We have come a long way from Cannon's "fight or flight" theories and we now recognize multiple reactions to acute stress —in the cardiovascular, respiratory, gastrointestinal, urinary, endocrine, muscular and other systems. These new findings voluminously reported are not too pertinent, however, to this discussion, since individual psychosomatic symptoms are not mass problems. What is important is to realize that these omniform physiological changes, once launched, run their course and the problem is at that point as physical as it is psychological. We are as yet not at all clear on the cerebral reactions to all these changes, nor are we certain how brain activity is modified physiologically. Clinically, however, stress seems to produce a sort of anesthetizing action on the brain, curtailing frontal (control) lobe function. Then, spreading backward in inhibitory waves, it apparently blocks activity in the perceptive (parietal-temporal-occipital) areas and finally inhibits the motor centers. At this point the extra-pyramidal centers seem to take over and the patient simulates clinically a typical case of Parkinsonism, with masklike facies, bradykenesis and pill rolling tremor. Clinically this retrograde inhibitory spread from frontal cortex over the neopallium is most obvious and has been observed in thousands of combat cases.

Psychological factors seem more vital in earlier phases in determining who will and will not develop symptoms in a given stress situation. Obviously anybody—you, I, any human—will develop panic or terror if sufficient stress is applied long enough. But breaking points are highly variable from person to person and in any one person from time to time. Stress represents environmental pressure. Since our percepts of the environment reflect only our own personality structure, things that stress one may scarcely even annoy another today, but may befuddle him completely at another time. We can, however, work out a general etiologic sequence of fear, emphasizing that no one factor usually produces mass reactions but rather that there is a concatenation of pressure reactions interacting on variable personality patterns which suddenly catch fire in a panic state.

In handling individuals, of course, the basic personality is important in predicting fear reactions. In the mass, this factor is largely negated, since the hypnoidal hold of fear can render a mature person childlike in a fragment of a moment. Here other factors seem more important; and in catastrophe such factors as tension, insecurity and indecision or ignorance of what to do, seem most vital.

Tension, which is generally chronic and slowly builds up, is of course mostly found in combat situations but may develop as an aftermath of civil disaster such as repetitive earthquakes. In war, chronic tensions built by subtle propaganda, rumor or fear of attack may reduce a population to a "state of nerves" where even a minor incident sets off a panic reaction. Riots are typical examples of mass hysteria of this type—explosions generated following prolonged tension of one sort or other.

More important is insecurity. The "Invasion from Mars," Orson Welles' broadcast, burst on a peaceful not unduly tensional populace. Cantril's study of the public excitation shows that susceptible persons who reacted uncritically and in panic were:

1. Persons who rarely evaluated information—dogmatic, prejudiced, fatalistic persons who lacked standards of judgment.

2. Those who were unable to secure adequate information.

3. Those who were unable to fit the stress into an already established pattern of function—rigid persons.

4. Those who were passive and accepted as truth anything they heard.

Persons of these types, when their security is even verbally attacked, tend to erupt or freeze in panic-terror patterns. In true catastrophes verbal elements play a part, as do visual and other sensory stimuli. The sudden awareness of personal danger forced to consciousness by the widespread death and desolation of the A-bomb is stressed by survivors. Lack of confidence in leaders ("they don't know what they are doing"), success of attacking bombers, presence of dead and mutilated bodies, all add up to personal insecurity and panic.

A final general factor is ignorance—fear of the unknown. Night raids are notoriously more fearful than day raids; and struggling against an unknown enemy—perhaps an unseen one like "atomic drift" —increases feelings of helplessness and insecurity. It is difficult to mobilize one's strength even to face known odds; and bolts from the blue—unpredicted and incomprehensible—these break down the bravest. Studies by investigators in England show that the British soldier feared not the machine-gun which was actually most lethal, but rather cowered at the Stuka dive bomber which did not really kill many troops but was unnerving because of its unpredictability and the fact one could not fight back.

There are of course many other contributing pressures—fatigue, illness, malnutrition, for example—tension, insecurity and ignorance are the basic blocks of mass hysteria.

Somehow at first glance these stresses seem intangible and unmedical. What role does the physician play in their control? Here we are on firm ground: First, prevention; then, treatment.

Prevention of panic-terror states begins early. One of the great stresses is ignorance, and it can be overcome only by education. This means, in this specific situation, a comprehensive understanding of the problems of civil defense in relation to possible atomic attack. Some authorities[13] claim "that people only through becoming emotionally and psychologically involved in studying the facts and making individual decisions as to their roles in a disaster will develop the capacity to cope with whatever emergency arises." Physicians in California should know exactly what can, and, more important, what cannot happen. Security—that is, keeping information from an enemy—may be of military necessity at times, but it seems silly to perish merely because the secrets of survival are locked in a safe.

General education is also essential. Here the scare-type of propaganda must be replaced with facts—facts presented in combination with constructive evaluations presented authoritatively by the medical profession. Most persons have learned that a cut artery soon produces fatal hemorrhage. This information can be frightening. We do not feel so insecure, however, if with the information comes constructive suggestions on how to render first aid. This is the psychological approach we must use with atomic information: What will it do? What can we do? Useful techniques of this type appear in the Civil Defense news[6].

Three tips on how to reduce the threat of panic were recently offered local [Los Angeles] Civil Defense Officials by Dr. Frank Fremont-Smith, internationally known psychiatrist and consultant to the Air Force on dynamics of human behavior.

1. Explain to every citizen that even though A-bombs do fall in a given area his chances of survival are good. Instead of saying that two atomic bombs might cause "80,000 casualties" in a metropolitan area like Los Angeles, say rather that casualties would be "not more than two out or every 100 persons in Los Angeles County."

2. Emphasize the idea of mutual aid. "If residents of a stricken city know that residents of all other cities are well prepared and anxious to help, all will feel more secure."

3. Make sure each person knows he has a job to do. "From experience abroad we know that nothing does more to obviate threat of panic than a civilian defense set-up in which everyone, including children, is trained to perform a particular job. A small boy who knows it is his responsibility to have flashlights in good condition in his home seldom will panic."

Suggestion 3 introduces another prevention technique for physicians—learning a routine which can be followed even though cortically confused by fear. Over and over in combat one sees the soldier, even in a borderline panic state, repeat successfully functions learned in basic training. Here is the true reason for the repetitive, almost *ad nauseam,* drill of soldier, policeman, fireman or civil defense worker. The mere reading of posters is not enough. What counts is repetitive practice under simulated conditions until the action, whatever it may be, is successfully undertaken without conscious thought, since anyone may well lack capacity for conscious action as fear paralyzes his cortex.

Every physician (actually, in so far as possible, every person) should have a plan of prepared action. This plan should be plastic—almost nobody stays in the same place every hour of every day—and should be prepared to produce maximal feelings of security developed through prearranged action in all possible situations.

Worry about loved ones, about one's associates, about what is happening, can be lessened to some degree by such a scheme. Realizing that each person knows what he is to do, and is doing it, affords maximal reassurance for security. Cut off, across town from his family, a physician who knows his wife and children are following a safety plan will feel less guilt at carrying out his own prearranged commitments.

At this point information is again important. Battery radios—portable or those in an automobile—proved most useful in recent California earthquakes.[11] A knowledge of what goes on is reassuring and stifles rumors.

In quashing rumors, physicians can play a key role. In any disaster rumors act as tinder to potential "explosions" of masses of people. As a person of authority, doing his job, the physician can break up rumor by a simple query: "How do you know?" and by pursuing this point—"How do you know"—until the rumor-monger admits defeat, for obviously in the case of rumor no one can really know.

Finally, in prevention the physician should be concerned with the treatment of borderline panic states to prevent further infection of the group. Persons in anguish states should be treated and removed to more controlled areas or to hospitals. Tensional persons or groups should be spotted and assigned to useful work. Here the physician must recall the "flight or fight" theory and remember that if a person can do neither his physiological adaptative changes simply pile up and increase his tensions. Physical activity constructively directed is a most useful preventive of panic. Most physicians have always marveled at the doctors in motion pictures who at any time of stress, especially childbirth, put everyone in reach to boiling vast quantities of water—a most useless task, it seems, until one realizes it provides action and thereby mayhap reduces tension.

If panic patterns develop despite prevention measures, physicians can do much to help. It is conservatively estimated that in panic situations "simple measures well within the capabilities of any physician properly indoctrinated would make possible the return to the population of from 50 to 60 per cent of psychiatric patients."[4]

In the European Theater in World War II, psychiatric methods for use in combat areas were taught to hundreds of battalion surgeons in less than a week; and those physicians knowing only a few principles of psychiatric first aid, returned most of the soldiers in panic-terror states to combat without need for more complex therapies.

On the physical side the best medicines for prevention and treatment are food, fluids and rest; on the psychological side, reassurance. Mobile kitchens—hot soup (the omnipresent British army tea is typical) are of use in prevention and in diverting small groups in turmoil. Physical activities directed toward food preparation are useful outlets. A great deal of attention to this factor is fully warranted. Coffee and tobacco in ample supply are also staples of treatment and prevention.

Sedation is of value only in states of severe excitement. Here one must be most cautious, since small doses may simply depress further an already depressed cortex and precipitate an explosive reaction.[15] Persons in terror states can be taken to a safe place and given hot food. They usually are no problem since, like sheep, they follow directions easily and do not excite others. A truly excited patient, however, must be sedated. Newer drugs such as rauwolfia extracts are as yet unproven, and while of possible advantage[12] may produce side effects. Drugs given by mouth are much too slow for treatment although of some use in prevention. Rapidly acting barbiturates have proven most valuable, and in panic excitements intravenous medication is the method of choice. Since the person is hyperactive, large doses are the rule; routine administration generally only confuses the patient and increases the excitement. Dosage varies with each drug, of course, but World War II experience suggests the use of such medication should be limited and administration and dosage should be based on actual achievement of definite sedation rather than on text-book dosage recommendations. Sometimes two to four times the routine amounts are required for such emergency sedation.

Crowds should be approached through education, with information given by loudspeakers or radios or even by persons who can speak effectively. As information of an accurate nature is presented, the panic will lessen as the people listen. Even nonreassuring data, if accurate, brings a crowd to reality thinking. Mira found that if evacuation was possible, people panicked; but when a city was surrounded and the people were told it was surrounded, they quieted and returned to their duties. Even knowing that death is a certainty seems preferable to not knowing anything.

Reassurance is naturally most useful for groups or individuals. Accusing or blaming is worse than useless. Information about fear—how it acts, why frightened persons or groups behave as they do—is a constructive approach. Reassurance predicting complete resolution of a patient's symptoms is most valuable in panic or terror states, especially if given during the administration of intravenous sedation. Explanations of situational problems and encouraging action rather than demanding control are approaches which give frightened persons confidence in themselves.

Equally important are the actions of the physician. By unfrightened manner and control he can infect a group in a positive reassuring fashion. The physician in this consideration must realize that as a person of authority he will often be the recipient of the displacement or projection of hostilities of many persons whom he has forced to face the grim realities of the situation. Scapegoating is a common pattern in such situations and may well be directed at the doctor. Panic and terror are an escape and the return to the present may be painful. Such hostilities, again, can be handled by information, reassurance and directing the person to some physical constructive action.

From the nature of this presentation thus far it might seem that the lessons of the medical school as to employing laboratory aids and routine medications are singularly unuseful in catastrophe. This is not true. The fact the physician knows what he is doing is impressively reassuring. He, at any rate, is not being jabbed by the horns of the present dilemmas. He knows his way and goes it.

If he can also expedite information and stop rumor he will be undercutting potential panic. As a doctor he emphasizes the need for food and fluid, for warmth and reasonable rest and administers necessary sedation. He utilizes his years of clinical experience in comprehending the querulous antagonisms of people who are distressed and in resolving their physiological pressures in constructive action. Certainly what he does medically and surgically in treatment is vital for survival of the injured. By adding a little psychological method to his armamentarium, he may be able to also avert a major catastrophe, or at any rate provide for a feeling of security and well-being in those whom he contacts—a feeling that at times is more vital than well bandaged wounds.

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Civil Defense

Procurement and Use of Blood, Blood Derivatives and Plasma Expanders in a Major Disaster

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On June 15, 1955, a major attack by enemy aircraft was made by surprise on California. The invaders succeeded in reaching their targets and dropped atomic bombs on the large cities. In one city alone, it was reported that 180,000 people were killed and 177,000 were casualties. The combined total was approximately 40 per cent of the inhabitants of that city. Other urban centers suffered equal destruction. Fortunately, the above statistics are only the realistic figures tabulated by the Civil Defense authorities after the simulated attack.

The hypothetical destruction of the city, the bleak desolation, and the tremendous loss of life are impossible to envision; but the figures cited are probably quite factual, as they are based on findings obtained by the actual past use of the smaller weapons of destruction. If the largest bombs which are now available had been dropped, it is conceivable that the killed and injured would more closely approximate 60 to 80 per cent of this state's population. If such a catastrophe occurred, thousands of our people would die for the very simple reason that there would not be enough blood instantly available to care for them. Blood is outdated after 21 days, and the stocks that would be in the ice boxes of blood banks would probably be destroyed or contaminated. We must assume that there would be very little usable whole blood in the entire state.

It is not intended that this short article should exactly define the specific uses of blood, plasma, other blood derivatives, and plasma expanders. Every physician should know the full therapeutic value of these different transfusion commodities. We recommend a refresher perusal of one of the recent books written on transfusion therapy. Physicians who served in the last war know full well the tremendous value of blood, plasma and serum albumin in the mass treatment of badly wounded service personnel. Suffice to say that if there is enough blood of the proper type in the proper place at the proper time, the likelihood of saving patients is tremendously enhanced.

A constant problem in blood banking is to create ways and means to make sure that no person in peace or war shall die because of the lack of blood.

The chart on the adjoining page presents a condensed table on the usage of blood and its derivatives.

The population of California now is 12 million. Supplies of blood available for therapeutic purposes are adequate and are conveniently placed. Approximately 310,000 units of blood are used per year. There are 12 banks operating within the framework of the California Blood Bank System, two Red Cross Regional Blood Centers, several small hospital blood banks, and three commercial laboratories currently drawing blood for use in the state. Los Angeles and Orange counties with their combined five million are the areas which use the most blood at present. No state in the nation has a more completely integrated, coordinated blood coverage system than California, but like all medical ancillary public services, the blood program cannot remain static; it is not perfect, it is being continually improved.

Earlier planning in the location of blood banks is turning out better than could have been expected for they are widely dispersed throughout the length and breadth of the entire state. These banks mesh and interlock with each other. They serve definite territories and stand ready to implement their neighbor institutions' need for blood and thus provide better transfusion protection for all communities. This well-integrated plan has worked well, and for the first time in medical history it has made blood instantly available anywhere in California or procurable within a few hours. However, this system would break down under the stress and mass destruction incident to atomic bombings. Supplementary long range measures must be formulated speedily and effectively to solve this pressing problem.

The Federal Civil Defense Administration Bulletin No. 184 (dated May 24, 1955) estimates that the number of living casualties following an air attack on the five major target cities of our state would be over one million. The blood that would be needed during the first ten hours would be 100,000 units, from 10 to 72 hours 940,000 units, and from four to 21 days 1,150,000 units. This large figure equals the quantity of blood that now is drawn by all of

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President of the California Blood Bank System.

THERAPEUTIC CHOICE FOR USE INTRAVENOUSLY

A = First Choice , B = Second Choice , C = Third Choice , D = Fourth Choice , E = Fifth Choice

	WHOLE BLOOD		PLASMA			RESUSPENDED RED CELLS	HUMAN SERUM ALBUMIN	ANTIHEMOPHILIC GLOBULIN	* GELATIN
	fresh	preserved	liquid	frozen	dried				
SHOCK, HEMORRHAGIC	A	A	B	B	B	D	C	▨	E
SHOCK, BURN[1] OR CRUSH SYDROME[1]	B	B	A	A	A	▨	C	▨	D
SHOCK WITH CEREBRAL HEMORRHAGE	B	B	C	C	A[4]	▨	A[4]	▨	D
SHOCK, MEDICAL[3]	B	B	A	A	A	▨	C	▨	D
ANEMIA, ACUTE	A	A	▨	▨	▨	B	▨	▨	▨
ANEMIA, CHRONIC	B	B	▨	▨	▨	A	▨	▨	▨
LEUKOPENIA[2] OR THROMBOCYTOPENIA[2]	▨	▨	▨	▨	▨	▨	▨	▨	▨
HYPOPROTEINEMIA, ACUTE[3]	D	D	C	C	B[4]	▨	A[4]	▨	▨
HYPOPROTEINEMIA, CHRONIC[2]	▨	▨	▨	▨	▨	▨	▨	▨	▨
CARBON MONOXIDE POISONING OR METHEMOGLOBINEMIA	B	B	▨	▨	▨	A	▨	▨	▨
COMPLEMENT OR PROTHROMBIN DEFICIENCY	B	B[5]	A[6]	A[7]	A[7]	▨	▨	▨	▨
HEMOPHILIA	B	C	B[6]	B[7]	B[7]	▨	▨	A	▨
IMMUNOTHERAPY	B	B	A[8]	A	A	▨	▨	▨	▨

[1] Initial treatment

[2] No treatment with blood recommended

[3] Several causes (cf. text)

[4] Concentrated

[5] Stored less than 10 days

[6] Fresh liquid plasma

[7] Plasma quickly stabilized after collection

[8] Plasma stored less than 3 months

*Since the above table (taken from "Blood Transfusions" by DeGowin, Hardin and Alsever: W. B. Saunders Co., Philadelphia, 1949) was printed, the choice of gelatin for intravenous purposes has changed. Dextran and polyvinylpyrrolidone (PVP) appear to be more suitable in the role of plasma volume expanders.

the blood banks within the state in a three-year period. Realistic thinking can only conclude that a massive loss of life would result even if only a five megaton multiple strike were inflicted.

In order to show the tremendous physical plant and the great expansion of trained administrative and technical personnel that would be necessary in our blood banks to meet this challenge (presupposing that by some miracle the banks were spared), the following example is outlined (based on statistics from FCDA Advisory Bulletin No. 184):

1. If 1,150,000 units of whole blood are required four to 21 days (a 17-day period) following a major disaster of the five target areas:

   (a) Approximately 67,647 units of whole blood would be required per day (24 hours).

   (b) Approximately 2,819 units of whole blood would be required per hour.

2. If one team of 105 workers, using 20 beds, could draw and process 100 units of blood per hour:

   (a) Approximately 28 teams (2,940 personnel) would be required to draw and process 2,819 units of blood per hour.

3. If three eight-hour shifts are required per 24 hours, and a different team is used each shift:

   (a) Approximately 84 teams (8,820 personnel) would be required to draw and process 67,647 units of blood per day.

Based on the previously mentioned estimate of 177,000 casualties for one city alone (where blood bank has a present maximum monthly capacity of 12,000 units) the bank would have to increase its production 22 times in order to supply the estimated 265,500 units of blood required in a four-week period (1.5 units per living injured).

Blood banks in the past have grown, through necessity, to their present maturity in the larger population centers. This logical development was geared to the greatest source of donor supply and recipient demand. During peace, this is a good working relationship. However, during a massive bombardment from the air, or from any other large scale disaster, not only would the cities and towns be completely obliterated, but so would the large blood banks which now give these urban areas complete blood coverage. Seven of the largest banks are situated in the middle of our metropolitan zones and would, therefore, be close to ground zero. One bank is located at the periphery of epicenter, and two lie directly in the fall-out path. Only four blood banks might escape destruction. Two of these four are the smallest banks in the system, and the other two are listed as medium sized banks.

The logical deduction, then, is that the present large urban banks of the state would simply cease to exist just at the time when their commodity is most needed. It appears obvious that we should disperse these vulnerable blood banks and get them sufficiently far outside of the strike area in order that these facilities would not be destroyed and their trained personnel scattered. If this plan is not feasible, then we ought to organize and create satellite banks on the safe perimeter of the larger centers so that in case of need these satellite banks could go into immediate operation. To do this would require financing not immediately available. All 12 of our community, nonprofit blood banks are entirely dependent for their existence on the small service charge made for their services. They just do not have sufficient money to create such an all encompassing network of satellite banks, erected, equipped and staffed, even on a stand-by basis.

In California, communities differ widely from one another in topography, transportation routes, weather, food and water supplies, ease of speedy access to or egress from the area and even in the nationality of the inhabitants. Each site assumes a complexion of its own; hence any overall blueprint for a major disaster must be broken down to the needs of the particular locality. In some measure this is good for it places the responsibility directly on each community to do something for itself in planning, implementation and creating safety measures. Certainly this is true in blood banking. The rapid dispersal of the inhabitants of the central California valleys would be comparatively easy as contrasted to the impossibility of mass evacuation from the San Francisco area, where also the primary routes of escape run mostly into the dangerous fall-out areas to the southeast. It is fallacious to assume that each community will have four to six hours of warning before attack, permitting necessary medical blood procurement facilities to be removed to predesignated population collection centers along the escape routes where they could commence blood procurement as soon as the first onrush of escapees arrived at the holding stations. That does not take into account the hysteria, the confusion, the disorientation and the emotional behavior of the displaced people.

The California Civil Defense authorities have dispersed throughout the state over 32,000 units of blood plasma, 273,000 empty vacuum bottles with donor and recipient sets and adequate anti-A and anti-B typing serum. Augmenting this large reserve of plasma, the Federal Civil Defense Administration has stored within the state, for emergency use, 86,856 units of normal human dried plasma, a large quantity of vacuum bottles, donor and recipient sets, and a sizable amount of plasma volume expanders in the form of dextran and polyvinylpyrrolidone. These extensive stockpiles are now protected against ordinary bombings, but improved conservation plans are at present under way to make these valuable supplies even less vulnerable. In addition to the state and federal civil defense supplies, there are 5,200 units of plasma belonging to the blood bank sytem. These units are now strategically placed in various hospitals or in the banks' own storehouses.

The first ten hours following a major disaster are the most crucial. These few hours would see very little definitive medical treatment carried out. First aid would be the order of the day. Plasma, serum albumin and plasma expanders would be immediately utilized as these products are available in considerable amounts. The numerous first aid stations throughout the state have been equipped by civil defense, and all carry considerable supplies of these intravenous therapeutic agents. Accessory stores would be quickly mobilized and sent to the stricken areas.

If any whole blood is to be given during these critical early hours, it must of necessity come from sources outside the strike and fall-out zones. On them would fall the burden of drawing, checking and transporting blood on demand to the damaged areas. States adjacent to California, if unharmed themselves, would be called upon to augment the supply of blood, plasma and blood derivatives. This plan calls for an immediate close integration with the states surrounding ours to the east and north, Fortunately, both the California Blood Bank System's clearing house and the American Red Cross have established close reciprocity with the nation's blood banks.

On the bright side of the ledger are the following:

(a) Thousands of our people have previously donated blood. They are typed and carry their type card identification. The inmates of our penal institutions and state hospitals likewise are typed. This great reservoir of listed specific type blood would be available for instant use if the institutions were undamaged.

(b) Mobile procurement facilities are quite widely dispersed—a feature of great importance. They would be alerted for instant action.

(c) Some administrative and technical volunteer personnel have already been trained. This is particularly true of the two Red Cross installations, and as some of these volunteers live outside the critical strike areas, they would be thrown into action immediately.

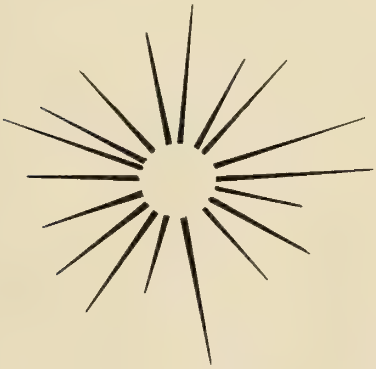
(d) A considerable stockpile of plasma and plasma expanders is instantly available. This enormous cache would be the first material to be used after the disaster.

(e) Adjacent states and the country at large would rally immediately and respond with blood and plasma. Certainly the entire nation would not be irreparably damaged. The American National Red Cross blood centers and other out-of-state blood banking agencies would instantly come to our aid.

(f) Refugees in the large collection and holding centers would be spot-checked and the type O blood drawn. In this early phase no attention would be paid to the Rh factor. Later, when some semblance of order was established, type-specific needs could be furnished on demand from these holding zones. If necessary, complete blood procurement teams would be flown in from outside banks.

To augment plans by which we might be better prepared to face major attack sufficient sums of money must be made available for the creation of a well coordinated blood bank administrative and technical training program, for the education of the population in disaster blood procurement techniques, and for the creation of an intermeshing network of widely dispersed satellite blood banks. Without this financial assistance, the blood bank system must necessarily run along on its present schedule—which is adequate for peacetime needs. Given sufficient monetary aid, real progress toward disaster expansion could be achieved.

384 Post Street, San Francisco 8.



WITH WARNING

IMMEDIATELY REPORT TO YOUR CIVIL DEFENSE ASSIGNMENT

IF THIS IS NOT POSSIBLE, REPORT TO THE NEAREST MEDICAL INSTALLATION

WITHOUT WARNING

TAKE IMMEDIATELY AVAILABLE COVER. DO NOT LOOK AT THE BRILLIANT FLASH. IF IN CAR AND NO SHELTER AVAILABLE, STOP AT CURB, CLOSE ALL WINDOWS, TURN CAR RADIO ON, LIE ON FLOOR OF CAR.

AS SOON AS POSSIBLE CARRY OUT CIVIL DEFENSE ASSIGNMENT.

WHAT TO DO?

KNOW YOUR C.D. ASSIGNMENT. LEARN ALL ABOUT C.D.

Civil Defense

Public Health Measures to Be Taken in a Major Disaster

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PREPARATION FOR DISASTER in any given community directly hinges upon the individual and collective strength of all the people within that community. Strengthening and bolstering the weak, the sick, the handicapped is essential to any plan or organization dedicated to the preservation of human life; and the effectiveness of medical care and public health programs afforded to all—from infancy to old age—would be harshly exposed in the crucible of widespread disaster.

To look at the role of public health in the eventuality of major disaster is to apply a telescopic lens to its day by day, year-round regimen of preventing or meeting lesser crises, lesser emergencies. Only the scale of disaster varies. By its very nature, a health department is a disaster-preventing, disaster-reducing, disaster-curbing endeavor.

Many volumes have been issued in the past decade giving model plans for the organization of every facet of civilian defense. In no city in the nation has the ideal been reached and maintained. The following description is not intended to be construed as the ultimate goal in public health preparedness for major disaster. Instead, it attempts to show the public health measures which could go into effect in the city of Los Angeles should disaster strike tomorrow.

Communicable Disease Control

One of the greatest responsibilities of a health department is the control, by whatever means found necessary and practicable, of communicable diseases which threaten the health and well-being of the members of the community. Early detection and identification of diseases and early clarification of the methods of dissemination are extremely important in minimizing the effects and reducing the spread of infection. Whether a given disease results from innocent induction into the population by one or more carriers or from covert attack with biological agents, the obligation of public health remains the same.

Epidemic intelligence, encouraged by the World Health Organization to guard against another pandemic occurrence of influenza, has become a vital part of routine communicable disease control as well as of protection against bacteriological warfare. In effect, epidemic intelligence is a slide-rule method, summing up the daily count of epidemic diseases the world over, adjusting for anticipated seasonal variations and analyzing the resultant totals for local and national areas and observing the global pattern. Supported by current data and precedent, a more accurate evaluation and a more predictable course can be accorded slight epidemic variations on the local scene.

Much of the success or failure of this method is attributable to the rapidity with which unusual or undiagnosed diseases, or suspected outbreaks of infectious disease are reported. A dramatic demonstration of epidemic intelligence combined with the communicable disease control forces of the community occurred in Los Angeles last year. In a two-day period a private physician reported two suspected cases of typhoid fever. These two reports, indicative of a possible impending outbreak, caused the immediate activation of the city's epidemic investigation and control forces which quickly pinpointed a wedding reception as the origin of outbreak, traced several hundred unlisted guests (some to points as far away as Hawaii), found the typhoid carrier, and succeeded in confining the threatened epidemic to eleven cases and one death, with no secondary cases developing among persons who came into contact with the exposed group.

An integral part of the epidemic intelligence program in Los Angeles is its network of "epidemiologic listening-posts." Throughout the elementary schools in the city, board of education nurses play the role of the epidemiological eyes and ears of the health department, particularly watching for unexplained or excessive absenteeism, detecting causes and reporting daily absences for comparison with previously observed norms. These "listening-posts" were alerted for possible concomitant reactions among vaccinated children in the recent poliomyelitis immunization program. If, as a prelude to war, pathogenic agents were insidiously introduced into any group or into the population as a whole, an effect would be promptly observed in the elementary schools.

City Health Officer, Los Angeles.

As part of its communicable disease control activities, the health department offers to private physicians laboratory services in performing diagnostic tests on specimens and cultures in which these procedures constitute an instrument of disease control. At 56 locations about the city, laboratory deposit-boxes have been established for the use of physicians wishing to send specimens to be tested. These specimens—primarily blood to be tested for the presence of syphilis, blood for viral disease diagnostic tests and specimens from throat, stool and sputum for culture—are collected on a regular daily schedule. In time of disaster, these pick-up locations, familiar to physicians throughout the city, would be immediately available in undestroyed areas as emergency laboratory collection stations.

Not to be overlooked is the continuous immunization program conducted by every public health department in an effort to build a large reservoir of persons who are immune to certain specific diseases. Teams of doctors and nurses who routinely participate in this program could be diverted during a disaster to areas where outbreaks of other contagious disease demand mass inoculation.

Water

Early this summer, a destroyer docked in the Los Angeles harbor at San Pedro. As a part of routine procedure, fire hoses were attached to the ship and the ship's salt water fire pumps were put into operation. For five hours beginning at midnight, thousands of gallons of the contaminated salt water of the inner harbor basin were pumped into the city water system by accident owing to a faulty back-flow device. Within two hours after the first report, water mains were being flushed and chlorinating equipment was in operation. A cooperative effort between health department sanitary engineers and the city Department of Water and Power restored the water to customary purity in less than 20 hours. No disease was reported.

In the City of Los Angeles the health department alone spends more than 300,000 man-hours a year in the protection of public supplies of food and water and in the prevention and correction of those insanitary environmental conditions that may constitute a threat to the health of the people.

Food contamination, water pollution, rodent and insect infestation, disruption of sewage systems, makeshift housing, hazards attending industrial use of certain toxic chemicals and radioactive substances —all are familiar to public health sanitarians. While the magnitude of such problems in a major disaster would be many times that of any previously experienced here, the basic training and experience, the fundamental know-how for handling emergencies and the teamwork which is required are utilized every day.

Long-standing cooperation exists between public health personnel and other agencies, businesses and private industry throughout the city. In times of emergency conditions in water supplies, such as the example given above, chlorinating equipment from other city departments and industrial manufacturers is but a telephone call away. Sufficient portable equipment is available to chlorinate the entire city water supply over an indefinite period.

Milk

An active civil defense self-help committee, organized by the health department and composed of members of the dairy industry, has amassed a large amount of information and established procedures for the disaster conversion of methods and facilities. One hundred steel-lined tank trucks and 20,000 ten-gallon milk cans could be immediately channeled into the transportation of milk, water or other liquid foods if needed. Permanent and standby dairy equipment for power, refrigeration, storage and transportation has been inventoried and plans made for the pasteurization and distribution of milk despite damage or destruction of many facilities. Daily inspection of the plants of all large dairy producers and frequent tests of milk are already established patterns both in the city and in other California counties supplying milk to Los Angeles. A branch milk laboratory, maintained in the San Joaquin Valley, could supply a valuable disaster service, assuming that this location would be a safe distance from the immediate area of destruction.

Radiological Monitoring

With more and more industries using ever greater quantities of radioactive materials in normal peacetime pursuits, skilled radiological monitoring for the protection of workers against harmful ionizing effects from gamma and x-radiation as well as from beta and alpha emitters has become an accepted and established service provided by the health department in Los Angeles. A fully equipped central laboratory and a mobile radiation detection laboratory (loaned to the health department by the State Office of Civil Defense) are engaged in complete radiological assay. A number of sanitarians in the health department and many civilians scattered throughout the city have been trained in radiological monitoring. Following thermonuclear explosions, these radiologic teams would be deployed principally for the monitoring of food and water (public supplies, private wells, bottled water, etc.), although, where needed, they would be equipped to do atmospheric and ground surface radiation detection as well.

Radiological monitoring personnel from the department have participated in hydrogen bomb tests in Nevada.

Food Supplies

All local supplies of food, in addition to being checked for radiation exposure and radioactive particulate contamination, would require examination by experts for damage resulting from water, sewage, flash heat and fire, falling debris, glass splinters and explosion shock. Radiological monitoring and examination by experienced inspectors are sufficient for immediate separation of unsafe and possibly contaminated food from usable supplies, pending use of more precise laboratory procedures which might later be available.

Sanitarians from the food inspection service would be assigned to supervise food storage, preparation, handling and dish washing in mass feeding centers to reduce the possibilities of food poisoning or the transmission of disease.

Vector Control

The threat of large infestation of rats and insects in a major disaster is a relatively minor one, except in instances of the introduction of diseases which are transmitted by rodents or insect vectors. Traditionally, the best defense against either is the destruction of adult vectors and the elimination of harborage and breeding places. Currently, Los Angeles has fewer rats than most large cities in the country. Regular inspection and a full-time pest control division of the health department maintain this standard. Daytime activities of this division are supplemented by night rat control work, patrolling public areas where rat harborage may occur, poisoning, trapping, inspecting. Five years ago some 8,000 rats a month were tested in the departmental laboratory to detect disease organisms. Today this procedure is not deemed necessary as a routine but is done only in special instances.

Insects, too, as a menace to the public health are being effectively controlled. In the event of disaster, barring bacteriological attack, any intensive efforts to combat an inevitably increased rodent and insect population would be postponed until personnel could be spared from more urgent disaster relief activities in the field. If outbreaks of rodent and insect-borne diseases should occur, high priority would be given to the extermination of these carriers. The availability of local supplies of rodenticides and insecticides through wholesale suppliers has been ascertained and would be sufficient for temporary emergency use.

Following disasters, overcrowding of refugees and inadequate bathing and laundry facilities create problems of human pest control. Public health sanitarians, skilled in the safe and effective use of insecticides, would assist in controlling body lice, bedbugs, fleas, mites and ticks through disinfestation of people, their clothing, bedding and personal belongings as well as of the camp environment, equipment and materials. They would also supervise the establishment of bathing and laundry facilities and disposal of garbage, refuse and human waste.

Industrial Hazards

Increasingly the health department receives requests for detailed technical studies of suspected health hazards in various working environments. Special collecting and analyzing devices and equipment are used for studies of gas, fumes and dust.

Working closely with industrial management and labor unions, the occupational health team encourages accident prevention programs aimed at individual and collective safety. The staff serves in an advisory capacity to industry to help prevent possible explosions or other preventable accidents which might result in the release of toxic materials, chemicals and gases, and to protect personnel from hazardous substances where normal protective measures are inadequate or inoperative. Encouragement is given to the development of in-plant emergency procedures for the protection and evacuation of workers, and to special educational programs for employees, including first aid training and instruction on nutrition. As a result, a small but increasing corps of first aid trainees in industry has been formed to provide the vanguard of disaster relief among industrial workers in any type of catastrophe.

Emergency Feeding

That "an army fights on its stomach" was a recognized fact of warfare long before Napoleon expressed it in just that way. That a besieged civilian population lives or dies on its stomach is equally true.

To a people whose abundance has given them little acquaintance with starvation, lack of food is normally an academic consideration. Yet assuring a ready supply of safe nutritious food in areas of destruction is one of the largest problems to be met in disaster preparation. Three major factors involved in assuring food supplies are: Procurement and distribution; protection against contamination; and provision and maintenance of an acceptable diet which meets essential nutritional needs under emergency conditions. The first of these is not a function of public health; the second has been discussed above.

Mass feeding of victims of natural disasters in the United States is by definition and precedent a function of the American National Red Cross. This organization has been integrated into the civil defense plan in order that its valuable experience in caring for displaced persons be available when needed regardless of the source of disaster.

Functionally, the health department has a supportive duty in this endeavor. In Los Angeles, the nutrition staff of the health department has been active in disaster planning and would take its place to assist in the supervision of mass feeding during any emergency. Civil defense nutrition services recommend types and amounts of food which should be available for emergency feeding of the general population and of such special groups as infants, children, pregnant women, the aged and certain categories of those requiring special diets.

Depending upon the length of the emergency, attention would be given increasingly to special diets—such as those for diabetics, peptic ulcer patients, etc.—which were not required during the immediate postdisaster period. A continuing analysis of the effects of emergency feeding on the population would be necessary.

The stamina with which subjected people would be able to meet the devastation of an atomic attack, would depend largely upon their physical and mental health. As in all other public health programs, the nutrition service aims at the improvement of general health and to prepare individuals for physically coping with stress. To this end, it conducts a year-round campaign, utilizing every available medium, promoting good eating habits, debunking food fads, counteracting dietary misinformation and stimulating safe weight reduction and weight gain practices. Specifically for disaster it has propounded the stocking by families of an adequate three-day emergency food ration—a detailed listing prepared by departmental staff and in use throughout the United States.

Laboratories

The functions of a public health laboratory are probably the least well defined of any of the public health responsibilities during a period of disaster. This lack of definition is further complicated in Los Angeles by the centralization of laboratory facilities in one of the chief targets of the city—Civic Center.

Ordinarily, the load of the public health laboratory consists of bacteriological, serological and virus tests for communicable diseases; milk testing; Rh factor determinations for maternity clinic patients; and special examinations and tests for possible food poisoning, rabies, etc.

Meeting the immediate emergency needs of the acutely ill and injured would take precedence over all other laboratory activity in a disaster. Utilization of all staff and facilities for blood typing, blood counts and hemoglobins would probably be a requirement of the public health laboratory as well as of all undamaged clinical laboratories in peripheral areas.

The type of disaster, areas affected, extent of damage to facilities would all be factors in determining which other procedures should or could be continued in the early days postdisaster. For example, preparation and maintenance of supplies of blood, blood derivatives and reagents would be a major function of the laboratory if facilities remained intact. Sterilization and packaging of instruments is a routine which can be quickly and efficiently performed in the public health laboratory, as demonstrated in the mass poliomyelitis vaccination program. Sample testing of milk, water and food—a daily experience in the laboratory—could be conducted on a large scale if circumstances dictated a more imperative need for these services than for clinical tests.

Laboratory personnel would be a ready source of administrative ability in the establishment of field laboratories to aid improvised hospitals and emergency first aid stations.

In essence, the role of a public health laboratory in times of disaster is versatility—personnel, equipment, experience and established procedures for large-scale laboratory operations — which would meet general or specialized needs as they arose.

Public Health Nursing

Perhaps more than any other health worker, the public health nurse is a proponent of self-help. Her effectiveness in helping to control communicable diseases, reduce the maternal and infant death rates, promote good child health—all depend upon her aptitude in using the techniques of effective salesmanship. This salesmanship she must employ at all times on her job, with individuals at home, in clinics and in groups, and it must lead to their acceptance of health principles and methods in their own interest.

Because of her adaptability in meeting emergency situations as they arise, and because of the variety of tasks she performs, the public health nurse is an essential element in a disaster organization.

Every available hospital, emergency station and improvised medical facility and all available doctors and clinical nurses would, in a major disaster, be confronted with the enormous job of caring for acutely ill and wounded attack victims. These casualties would be added to the thousands of sick and injured who are hospitalized or under home medical care normally. Public health nurses would be called upon to assume much of the direction of home care of the sick.

Because public health nurses in any community comprise a very small group in relation to the population (only 113 in the Los Angeles City Health Department) they would be forced to administer a home care program manned by partially trained or untrained volunteers. Under emergency conditions with a shortage of medical personnel, some public health nurses would have to enter the field of diagnosis and treatment in order to save lives and prevent serious illness. Other duties within the realm of public health disaster nursing would include: Assistance in the detection and control of acute communicable disease in emergency shelters and in the resident community; assisting with nursing supervision of children and aged persons who have been evacuated from their homes; providing nursing services to pregnant women, mothers and infants in homes and shelters; providing "psychological first aid" to help in preventing mass panic and modifying traumatic emotional shock.

All public health nurses in the Los Angeles City Health Department take refresher training in blood drawing and all take a standard first aid course. All are experienced in mass immunization programs, all are proficient in handling large groups of people for health purposes, all know how to set up large clinics quickly.

As in the case of laboratory personnel, public health nursing strength lies in its versatility and flexibility. These important abilities are at the nurse's command only because her daily duties demand them. This is perhaps the most valuable training of all for disaster preparedness.

Organizing for Civil Defense

In addition to their public health responsibilities during disaster, health departments have been delegated specific obligations in the official civilian defense organization, which should be noted.

Under the authority of the state Civil Defense Act of 1950 and the Los Angeles City Civil Defense and Major Disaster ordinance, the city health officer is legally responsible for the development, organization and operation of a Health Services Division to meet emergency needs in time of major disaster whether a result of natural catastrophe or enemy attack. To this end, the city has been divided into 35 districts, each of which has a volunteer medical director appointed upon the recommendation of the Civil Defense Committee of the Los Angeles County Medical Association. Each of these districts is a self-contained unit operating within the structure established by the Health Services Division, each with a full complement of volunteer personnel recruited by district medical directors, including executive, intelligence, operations, personnel, supply, transportation, communications, liaison and public relations officers. District medical directors are charged with providing such organization as may be required to meet immediate local medical needs in the event of a disaster. Coordination of the districts and integration with the various other divisions of the civil defense organization is the duty of the Health Services Division headquarters staff.

All health department personnel are enrolled in the civil defense organization, as are all city employees, and all have instructions to report immediately to their nearest district health center for special assignment in the event of disaster. All of the nine district health offices are linked to the central office through short wave radios manned by trained operators who test equipment daily. The health officer is provided with short wave receiving and transmitting apparatus in his automobile for immediate contact with health districts and the civil defense headquarters. A staff trained in techniques of rapid and effective mass communication is prepared to transfer from routine health education duties to disaster communication and information services.

For five years, the concept of civil defense has been affected by the ebb and flow of the collective public emotion in response to international events. No sustained peak of fervor has existed in the minds of the people for self defense against a devastation too awful to comprehend—nor would it be psychologically healthful for them to maintain a high degree of fearful anticipation. Despite this, preparations against known dangers can and are being made. Meanwhile, private physicians and public health agencies alike have an important stake in building the strength of the nation through its principal resource—its people. Herein lies our future, in war or peace.

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Civil Defense

Medical Aspects from the Federal Standpoint

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THE FEDERAL Civil Defense Administration (FCDA) was established by Congress in December, 1950, under Public Law 920 of the 81st Congress. It is an agency of the Executive Branch of the Federal Government, reporting directly to the President. It was formed from a nucleus which had been working during the two preceding years in the National Security Resources Board (NSRB), consisting of the Health Resources Office and the Civil Defense Office.

Preceding the NSRB activities were two rather intensive studies done within the Department of Defense, resulting in the so-called Hopley Report, "Civil Defense for National Security."

All of these earlier studies indicated that, with modern weapons and modern means of delivery, Civil Defense was a vital necessity for this country.

So while the official organization (FCDA) is now more than four years old, organized activities have been going on for over six years.

The Civil Defense Act

Civil Defense is defined in Public Law 920 to mean all those activities and measures designed or undertaken (1) to minimize the effects upon the civilian population caused, or which would be caused, by an attack upon the United States, (2) to deal with the immediate emergency conditions which would be created by any such attack, and (3) to effectuate emergency repairs to, or the emergency restoration of, vital utilities and facilities destroyed or damaged by any such attack.

The law further defines Civil Defense so as to include, but not be limited to, (1) measures to be taken in preparation for anticipated attack, (2) measures to be taken during attack, and (3) measures to be taken following attack.

1. Pre-attack measures:
    - (a) Establishment of appropriate organizations, operational plans, and supporting agreements.
    - (b) Recruitment and training of personnel.
    - (c) Conduct of research.
    - (d) Procurement and stockpiling of necessary materials and supplies.
    - (e) Provision of suitable warning systems.
    - (f) Construction or preparation of shelters, shelter areas, and control centers.
    - (g) When appropriate, the nonmilitary evacuation of civil population.
    - (h) Education and training of the public in techniques of survival.
2. Measures to be taken during attack:
    - (a) Emergency information and instructions to the public.
    - (b) Enforcement of passive defense regulations prescribed by duly established military or civil authorities.
    - (c) Evacuation of personnel to shelter areas.
    - (d) Control of traffic and panic.
    - (e) Control and use of lighting and civil communications.
3. Post-attack measures:
    - (a) Fire-fighting and rescue.
    - (b) Emergency medical, health, and sanitation services.
    - (c) Monitoring for specific hazards of special weapons.
    - (d) Unexploded bomb reconnaissance.
    - (e) Essential debris clearance.
    - (f) Emergency welfare services.
    - (g) Immediately essential emergency repair or restoration of damaged vital facilities.
    - (h) Restoration of public confidence and morale.

The word "immediately" should be noted in the Act, because it was clearly the intent of Congress that Civil Defense activities be confined strictly to the emergency period. What is further needed is a clear-cut definition of what would constitute the emergency period.

Civil Defense Responsibilities

In this era, when civilians as well as military forces are actively involved in war, constant readiness for defense of civilians against enemy attack is essential. Civil Defense in the United States must be an efficient organization which can be mobilized instantaneously to combat the effects of enemy at-

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Director, Health Office, Federal Civil Defense Administration; Medical Director, U. S. Public Health Service.

tack on civilians. Moreover, it must be kept in a state of constant readiness so long as there is any threat of war in the foreseeable future. Finally, Civil Defense must be made a living function of civilian life, a matter of custom and habit, a matter of maximum activity, by utilizing existing patterns, existing agencies and existing means.

The basic operating responsibility for civil defense is in the individual and his local government. The individual, given all training possible, does what he can for himself in an emergency. The family unit, similarly trained, attacks its own problems while also contributing to the organized community effort. The community's civil defense organization works to meet its own crisis, receiving outside help if its facilities are inadequate, or contributing support to neighboring communities under organized state direction.

The preparation of the individual or the family for wartime attack on civilians, and their protection and preservation before and after enemy attack, is the prime objective of Civil Defense. Such individual and family protection is indispensable to the maintenance of civilian morale and determination to see a devastating war through to a victorious conclusion, and to the maintenance of civilian production of war materials, without which military efforts would quickly collapse.

The Congress—after studying various suggestions of placing Civil Defense in the Department of Defense, or as an independent agency, or spreading it throughout the government—decided that the primary operating responsibility would be in the states and their political subdivisions. The newly-constituted federal agency (FCDA) would coordinate the activities of the states and provide guidance and support—technical, financial and other.

The functions and duties of FCDA are: (1) To prepare national plans and programs for Civil Defense, and to advise the President, Congress, and the states of the status of Civil Defense; (2) to disseminate adequate civil defense information; (3) to provide courses and facilities for schooling and training; (4) to provide communications, warnings, and evacuation plans, (5) to develop civil defense measures, equipment, and facilities for the protection of the population; (6) to provide coordination of interstate programs and operations; (7) to advise the states on establishment of stockpiles of medical and other supplies; (8) to make financial contributions to the states for civil defense purposes; (9) to delegate certain responsibilities to other federal agencies and to coordinate their activities; (10) to coordinate civil defense activities with neighboring countries and allies; and (11) to stockpile equipment and supplies to be furnished the states and cities when needed.

Disaster Relief

In addition, FCDA, under executive order, has been directed to coordinate all federal activities in major disasters. Under Public Law 875 provision is made for the federal government to assist local and state governments in alleviating suffering and damage from major (natural) disasters, to repair essential public facilities and to foster necessary state and local organizations and plans.

Medical Program

Within the framework given above the Health Office of the Federal Civil Defense Administration has the responsibility in the medical and health areas of Civil Defense. These areas include:

1. Casualty Care
2. Medical Care of Noncasualties
3. Sanitation
4. Radiological Defense
5. Biological Warfare Defense
6. Chemical Warfare Defense
7. Mortuary Services
8. Medical Stockpiling

The FCDA Health Office exercises its responsibilities and functions under the Assistant Administrator for the Technical Advisory Services. In addition to the national office staff, there is a medical officer in each of the seven FCDA regional offices. His function is to work with the states and cities and the professional medical, health and allied groups within his region.

Planning Bases

Under current planning FCDA assumes that any or all of the 70 critical target areas could be attacked with nuclear and other methods of warfare. This assumption results in a total casualty estimate of 13.5 million living and dead immediately after attack. Of these, it is estimated that 8.2 million could survive the first day, constituting the extent of the total casualty treatment load. Eventual survivors would number about 5.5 million, making a casualty load of about 5 million over a three-week period.

These casualty estimates may be revised up or down as future developments warrant. Obviously, with sufficient warning time to effect evacuation the casualties would be reduced. On the other hand development of larger weapons with faster means of delivery might cause an upward revision of estimates.

Further, the effect of evacuation on the total medical load must be considered. While successful evacuation may reduce casualties, the public health and medical care problems of large numbers of displaced persons, deprived of the usual protective community resources, will be greatly increased. However, the load upon the medical and health resources will probably be just as great.

1. *Casualty Care.* This continues to be the gravest problem in Civil Defense because of its magnitude. In all the United States wars from the Revolutionary through World War II there was a total of 1,160,552 casualties that survived wounds. Civil Defense is currently planning to take care of 5,000,000 surviving casualties, produced within a short space of time—actually hundreds of thousands within a matter of seconds. Immediate casualty services would have to be provided locally, in great part by nonprofessional personnel under extremely adverse conditions. Initial supplies and equipment must come from local and close-by sources until state and federal aid can arrive. Obviously, effective casualty services will require the best advance planning, organizing and training. It is equally apparent that there will not be enough physicians and nurses and other professional and technical personnel to provide anything more than the most dilute emergency life-saving care. The principle of "doing the best for the most" will have to apply. Professional manpower and man-hours will have to be conserved for the important function of the use of professional judgment in determining which lives can be saved with available facilities. We will not be able to afford the waste of time and valuable supplies on casualties who cannot be saved except by time-consuming procedures. Ordinary peace-time handling of the injured cannot be practiced at a time like this. A good example would be a perforating wound of the abdomen. Good surgical technique ordinarily saves a large majority of persons with such wounds. But time and personnel will not be available to open the abdomen and spend several hours in exploration and repair. Expectant and delayed treatment in such cases is the only answer.

We are beginning to instill this philosophy in our medical schools. One of our big problems is to get training for mass casualty care down to the local physician. FCDA is exploring the possibility of putting a series of short lectures on sound film or film strips with platters. Content of the film would be similar to that given at the Walter Reed Army Medical Center Course entitled "Management of Mass Casualties." Such a series would contain guidelines for the classification (sorting) of casualties as well as the management.

2. *Medical Care of Noncasualties.* In addition to the care of those injured by enemy attack, we must plan to provide emergency medical care for all of the remaining population who will need medical attention. With great numbers of people on the move the average day-to-day morbidity will no doubt be increased. Every able-bodied person will be working to the point of physical and mental exhaustion. Food, rest, and transportation will be in short supply.

With evacuation of large numbers of the population will come the additional hazard of increased incidence of the communicable diseases. The chronic disease groups will be deprived of their usual attention in homes and outpatient dispensaries. Babies will continue to be born—probably more and earlier, if previous war-time experience is any indication. Abortions and miscarriages will increase. Injuries from accidents, traffic and other kinds, will be many. If the weather is unfavorable morbidity will be increased by exposure.

3. *Sanitation.* This program is directly connected with the control of the communicable diseases referred to above. Cities depend for their existence on a supply of safe water and food, on effective removal of liquid and solid wastes, and on shelter provided with plumbing, electricity, gas and heat. Disruption of utilities and the destruction of shelter could lead to extensive public health problems. If a city is evacuated, the population, normally accustomed to high sanitation standards, will be susceptible to a wide variety of communicable diseases when exposed to the primitive living conditions which must be expected in disaster situations. The threat of major epidemics in the evacuated and support area populations will be great. The chief specific problems will be:

(a) Delivery of uncontaminated drinking water to meet minimum subsistence standards.

(b) Disposal of excreta and liquid wastes to prevent enteric infections.

(c) Provision for emergency pasteurization or boiling of milk.

(d) Emergency housing sanitation to control the spread of respiratory infection and other communicable diseases.

(e) Insect and rodent control in areas where specific human diseases may be endemic in the insect and wild rodent populations.

(f) Food protection, including storage and handling, waste disposal, and other sanitation measures at mass care, hospital and emergency feeding centers.

(g) Decontamination of personnel and inanimate objects.

(h) Protection of shelter air intakes from the introduction of contaminants resulting from special weapons attack or from radioactivity.

(i) Determination of the safety of surface sources of water supply and uncovered parts of distribution systems, such as reservoirs.

(j) Determination of the safety of stored foods and foodstuffs.

(k) Provision for adequate potable water and safe food, and for emergency handling of wastes, in shelters.

The number of trained or experienced sanitation personnel on the peacetime staffs of local and state health departments will be inadequate. Support plans should provide for the interchange of technical personnel. Volunteer or part-time workers should be recruited and trained in advance. Many commercial establishments in the food-preparation and service industries have personnel with sanitation experience. Pest control, septic tank cleaning, building and maintenance firms also have personnel useful for sanitation, as well as equipment and supplies.

4. *Radiological Defense.* With the release of the Strauss fall-out announcement to the public, radiological defense assumed a new importance. The radiation hazard is nothing new nor are we without defense against it. The possibility of increased hazards from radiological contamination emphasizes the following points:

(a) The need for more detailed weather data. The Weather Bureau is ready and willing to cooperate closely at all levels of operation.

(b) The need for considering radiological contamination as an additional factor in plans for evacuation.

(c) The desirability of providing cover or shelter, since almost any kind of cover or shelter can reduce the danger appreciably. An ordinary frame house outside the area of blast and fire, for example, will afford some protection. A basement shelter will provide even more. A simple underground shelter with three feet of earth cover will give virtually complete protection from lethal radiation.

(d) The need for additional development in monitoring methods, including aerial and fixed station procedures.

(e) Implementation of training programs to keep step with the increasing number of survey instruments being procured.

FCDA continues to get out informational material on fall-out and shelter. A stepped-up training program is being developed in cooperation with the Department of Health, Education, and Welfare. The 1956 appropriation to FCDA includes funds for research in monitoring methods, decontamination, shelter, and medical management of radiation injuries. Also included are some $4,000,000 for procurement of survey instruments and dosimeters for the federal stockpile. Instruments will continue to be available to the states and cities for training purposes.

5. *Biological Warfare Defense.* The program for defense against biological warfare is divided into defense of man, defense of animals, and defense of crops. Adequate basis for the defense of man is found in the private medical practice and health departments of all the states. However, auxiliary health personnel is needed to supplement the peacetime communicable disease services within the community. For example, the need for water, milk and food sampling in times of threatened use of biological warfare will tax the community far beyond its peacetime requirements. Auxiliary personnel must be available to assume this additional load. This appears to be a logical spot for science students and teachers to fit into the civil defense picture in their community. On the national level, FCDA has delegated the responsibility for planning, research, and development of biological warfare defense and communicable disease control to the Department of Health, Education, and Welfare and the Department of Agriculture. Conferences at a technical level are in progress with the Public Health Service to formulate a working agreement delineating respective spheres of activity and responsibility in biological warfare defense and communicable disease control. Similar negotiations have been undertaken with the Food and Drug Administration of Department of Health, Education, and Welfare to coordinate their activities with FCDA.

The following research and training projects relating to communicable disease control and biological warfare defense, have been initiated by the Public Health Service:

(a) Immunization investigations on basic questions leading to improvement of vaccines and other immunizing procedures.

(b) Detection, prevention and control of airborne diseases.

(c) Laboratory techniques for rapid identification of biological warfare agents.

(d) Water supply protection.

(e) Milk and food protection.

FCDA stockpiling of biologicals and chemotherapeutic agents now is based in part on the requirements for a biological warfare defense and communicable disease control. A joint FCDA-PHS Technical Committee to advise in this area has been established.

The APHA Manual "Control of Communicable Disease" has just been reissued. Twelve thousand copies with an FCDA cover for distribution to state and local civil defense and health agencies have been ordered.

FCDA film strips and a filmograph on various aspects of the defense against biological warfare are almost complete. These are nontechnical and directed at lay groups. Exhibits on biological warfare and sound films on animal diseases have been cooperatively developed and acquired by FCDA and the Department of Agriculture.

6. *Chemical Warfare Defense.* Certain fields of responsibility in chemical warfare have been delegated to the Department of Health, Education, and Welfare. We feel that the whole Civil Defense Chemical Warfare program is included in detection and identification, individual protection, medical care, training, and industrial hazards.

The Army Chemical Corps is developing, for the Navy, a kit for the detection of nerve gases and vesicants which promises to be suitable for civil defense purposes.

The protective mask for civil defense workers has been standardized and is now available.

The Civilian Protective Mask (E-52), developed by the Chemical Corps for FCDA, should give sufficient protection against all agents, including protection against inhalation or ingestion of fall-out particles, to permit evacuation or transportation to shelters. It has passed engineering tests and we plan to procure 5,000 in five sizes (1,000 of each size) for field testing on approximately 1,000 civilian families. It is anticipated that field testing of this mask will begin soon, and the mask should be ready for procurement at a cost of $2.00 to $2.50 each. The question of their distribution is under study.

A protector for infants and children up to 6 years of age is also under development.

Atropine self-injection units for treatment of nerve gas casualties are still being procured under the federal stockpiling program. They will also eventually be supplied with all types of protective masks.

Training in this area presents the same problems as in other fields. Plans are being developed by the Public Health Service to implement training programs for the states.

It is planned that the American Chemical Society be asked to assist in a study of the chemical plants in target areas which might become a hazard by release of toxic chemicals. This study would be coordinated with the Industry Office of FCDA. When the problem is better understood, the Public Health Service will be asked to recommend the necessary precautionary measures.

7. *Mortuary Services.* While mortuary service is recognized as an essential, priority has been accorded other programs in the past. However, FCDA has developed a manual on mortuary services which is scheduled for issuance shortly. This manual will contain detailed recommendations for the collection, identification, and disposal of the large number of dead to be expected under enemy attack.

8. *Medical Stockpile.* From the federal standpoint more progress has been made in this program than any other. FCDA now has stored under 24-hour guard in some twenty warehouses scattered throughout the nation enough medical and surgical supplies and equipment to care for 2,500,000 casualties for a period of three weeks. With the funds provided in the 1956 fiscal year this amount will be increased to enough for 3,500,000 casualties for three weeks. This program is well in balance in all categories except for the 200-bed improvised hospitals. We have been able to order only 930 of the 6,000 improvised hospitals it is estimated would be needed. The states have procured about 68 of these units.

Our stockpile requirements must, of course, be revised as future developments warrant. At present, FCDA is working toward the goal of requirements for 5,000,000 surviving casualties for three weeks. By the end of fiscal year 1956 (June 30) we will have reached 70 per cent of this goal.

Although some states continue to procure items for medical stockpile, the amount has significantly decreased in the past year. Until authority and funds are provided the federal government, our stockpiles must still be considered as replenishment supplies for the states and the cities; initial requirements must come from state and city sources until federal supplies can arrive.

There is a noticeable trend towards the federal government's assuming more financial responsibility and more direct authority in the nation's civil defense efforts. However this turns out, though, it should be borne in mind that, if attack comes, it is the worker who is on the scene who must do the job. No federal agency has the manpower to perform so enormous a task. It must be a sharing of responsibility and duties. The federal government should do everything possible to assist the states and cities in preparing for something it is hoped will never happen. Yet every sound-thinking person recognizes that we must be prepared. Upon the shoulders of the medical profession will fall the most gigantic task ever created. Sound planning can make it easier.

622 W. Michigan Avenue, Battle Creek, Michigan.

California MEDICINE

For information on preparation of manuscript, see advertising page 2

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EDITORIAL

Civil Defense—Your Responsibility

THE SEEMING ABATEMENT in international tensions initiated by the top-level meetings in Geneva and abetted by our inherent desires for peace have contributed to a sense of security whose foundation is far from secure. Even our President and his Secretary of State recently have warned the nation lest we exchange the cold facts of demonstrated communistic plans of aggression for the warmth of wishful thinking.

Unfortunately, the tides of Civil Defense rise and fall with the popular concern over the dangers of enemy attack. The Kremlin must take great satisfaction in the present low ebb of Civil Defense interest on the part of the American populace. Our nation cannot afford again to be unprepared if and when the enemy strikes. Lest some may read these lines with the cynic's jaundiced eye, let him think back only a little more than a decade, when proud ships of our navy were sunk at anchor and the infantry shouldered broomsticks and the artillery maneuvered stove pipes. The gravity of a future attack lies in the fact that those who will suffer from the lack of preparedness are not only the military but, even more, the civilian American men, women and children within as well as without the continental limits of the United States.

American physicians traditionally have played an active role in the defense of our nation. In fact, seldom in the annals of history has a profession rallied as did ours during World War II when one-third of the total strength of our profession volunteered and served with the armed forces. Again our nation faces a real crisis. We are living in the time of the so-called cold war—a kind of warfare made all the more dangerous by virtue of the psychological combat of nerves wherein the winner subtly succeeds in wearing down an opponent to a status of indifference. No factor will destroy Civil Defense effort faster and more thoroughly than popular indifference.

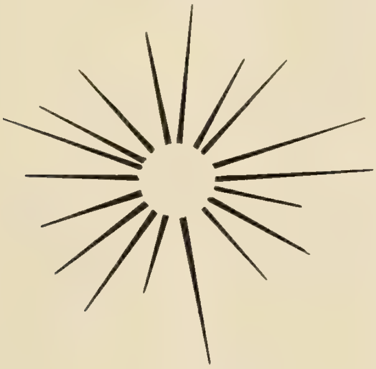
Nothing in our history has prepared our nation for the ruthlessness of atomic warfare carried out on our own home soil. Future warfare will not differentiate between the military and civilian population, for to destroy the source of the bomber or aircraft carrier is far more effective than to destroy the finished product on the field of combat. The enemy will attempt to liquidate population centers in the hope that the psychological impact of devastation will break the morale of the American people.

In the final analysis a major factor in the survival of our nation will be the ability of American physicians to cope with the problems of mass casualties. No physician, however inadequate he or she may feel professionally, or regardless of the distance removed from target priority potentials, can absolve himself or herself of the responsibilities of Civil Defense preparedness. In the light of the destructive nature of total war it becomes increasingly apparent that much of the medical support for human salvage in the event of national disaster must come from the satellite communities. Thus, every physician—specialist or general practitioner—whether from a rural area or metropolitan center, will have a direct medical responsibility in the care of casualties.

Communities will look to their physicians for leadership in certain phases of Civil Defense and unless this leadership is forthcoming and intelligent, we will have failed miserably in our responsibility to our community and our nation alike. In order to discharge this obligation effectively, the American doctor should study the rudimentary fundamentals of mass casualty care; the value of accurate triage; the problems of rapid and distant patient evacuation; the basic therapeutic considerations in the handling of large numbers of severely burned casualties; the logistics of whole blood, plasma and plasma expanders as related to a national emergency; the prevention and treatment of radiation injury and many other problems associated with Civil Defense.

Fatalism, a grossly inaccurate attitude, has no place in the scientific repertory of the American doctor. Just as dangerous is the philosophy that medical preparedness can be forged in the fire of enemy attack, for under the new terms of war the initial blow may well be the most critical. The only acceptable course remaining for American medicine is to prepare realistically for a possible national catastrophe with the sincere prayer and fervent hope that the results of this preparation will never culminate in disaster application.

So swift, nowadays, is the pace of invention of new ways of destruction that no program of Civil Defense can remain static. This issue of CALIFORNIA MEDICINE is given over to medical aspects of Civil Defense in order that the latest developments can be reported and physicians can bring themselves up to date on the problems they will face and the duties that will be theirs should our country be attacked. This special edition was brought into being by Dr. W. Dalton Davis, who is medical consultant of the Medical and Health Services Division of the California Office of Civil Defense, and by Dr. Justin J. Stein, chairman of the Committee on Military Affairs and Civil Defense of the California Medical Association. They and the other physicians who have written informative articles for this issue deserve our thanks for this service to their colleagues and their country.



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California MEDICAL ASSOCIATION

NOTICES & REPORTS

Council Meeting Minutes

Tentative Draft: Minutes of the 414th Meeting of the Council, Ambassador Hotel, Los Angeles, August 28, 1955.

The meeting was called to order by Chairman Lum in the Regency Room of the Ambassador Hotel, Los Angeles, at 10:00 a.m., Sunday, August 28, 1955.

Roll Call:

Present were President Shipman, President-elect Charnock, Speaker Doyle, Vice-Speaker Foster, Secretary Daniels and Councilors Lum, Heron, West, Wheeler, Loos, Wadsworth, Pearman, McPharlin, Bostick, Teall, Kirchner, Varden, Carey and Rosenow.

A quorum present and acting.

Absent for cause, Editor Wilbur and Councilors Sherman and Reynolds.

Present by invitation were Messrs. Hunton, Clancy, Thomas and Gillette of C.M.A. staff, legal counsel Hassard, Doctors Francis Hodges and William Gardenier of California Physicians' Service, Doctors Dan O. Kilroy, Joseph F. Sadusk, Jr., and Malcolm Merrill, Messrs. Ben H. Read and Eugene Salisbury of the Public Health League of California and county society executive secretaries or employees William Scheuber of Alameda-Contra Costa, Jerry L. Pettis of Los Angeles, Robert Marvin of Riverside, George W. Foster of Sacramento, Olive Neick of San Francisco, Boyd Thompson of San Joaquin, Joseph Donovan of Santa Clara and Thomas DeVere of Stanislaus.

1. *Minutes for Approval:*

(a) On motion duly made and seconded, minutes of the 412th meeting of the Council, held April 30-May 4, 1955, were approved.

(b) On motion duly made and seconded, minutes of the 413th meeting of the Council, held May 4, 1955, were approved.

(c) On motion duly made and seconded, minutes of the 250th meeting of the Executive Committee, held May 4, 1955, were approved.

(d) On motion duly made and seconded, minutes of the 251st meeting of the Executive Committee, held July 20, 1955, were approved.

2. *Membership:*

(a) A report of membership as of August 25, 1955, was received and ordered filed.

(b) On motion duly made and seconded, 69 members whose 1955 dues had been received since July 20, 1955, were voted reinstatement.

(c) On motion duly made and seconded, Doctor Cyril T. Callister of Alameda-Contra Costa was elected to Associate Membership.

(d) On motion duly made and seconded, three applicants were granted reductions of dues because of illness.

3. *Financial:*

A report of bank balances and supplementary information as of August 25, 1955, was received and ordered filed.

4. *Medical Review and Advisory Board:*

Doctor Joseph F. Sadusk, Jr., chairman of the Medical Review Advisory Board, presented a progress report from his committee, including a set of suggested principles to apply in the underwriting

SIDNEY J. SHIPMAN, M.D.	President
DONALD A. CHARNOCK, M.D.	President-Elect
JAMES C. DOYLE, M.D.	Speaker
PAUL D. FOSTER, M.D.	Vice-Speaker
DONALD D. LUM, M.D.	Council Chairman
ALBERT C. DANIELS, M.D.	Secretary-Treasurer
IVAN C. HERON, M.D.	Chairman, Executive Committee
DWIGHT L. WILBUR, M.D.	Editor
JOHN HUNTON	Executive Secretary

General Office, 450 Sutter Street, San Francisco 8

ED CLANCY	Director of Public Relations

Southern California Office:
417 South Hill Street, Los Angeles 13 • Phone MAdison 6-0683

of professional liability insurance. After discussion and following several questions, on motion duly made and seconded, it was voted to approve this report.

5. *Los Angeles Medical Convention:*

Doctor Paul A. Foster discussed the Los Angeles Medical Convention, which is scheduled for January 3 to 5, 1955. He pointed out that the medical and public aspects of this meeting had been separated and the public portions of the meeting scheduled for a more extended period following the three-day medical convention. Exhibits are to be screened through a review committee and a committee on arrangements. In response to a question, Doctor Foster stated that the scientific portion of the program was probably being scheduled as a one-time meeting only, not an annual event.

On motion duly made and seconded, it was voted to extend to the Los Angeles County Medical Association the best wishes of the Council for a successful meeting.

6. *Professional Disability Insurance:*

Doctor Arthur A. Kirchner, chairman of the committee on Accident and Health Insurance, reported that difficulties which had arisen in the handling of claims for members suffering disabilities would apparently be eliminated in the establishment on September 1 of a claims office in Los Angeles to handle the California program. The underwriting insurance carrier has paid out more than $600,000 in claims, he said, and is now planning a third type of contract, under which the physician may elect a six-months waiting period before the payment of benefits and secure coverage at an annual premium of $138. On motion duly made and seconded, it was voted to approve the use of the Association letterhead for a letter to announce this new coverage. The letter would be signed by the members of the committee.

7. *State Department of Public Health:*

(a) Doctor Malcolm Merrill, State Director of Public Health, outlined the program drawn up by his department, in conjunction with a medical advisory board, for the distribution of poliomyelitis vaccine. While the vaccine is still in short supply, and while federal funds will be available for the purchase of certain quantities, a portion of the supply available to this state will be purchased by public agencies and the balance allowed to enter normal commercial channels. A system of reporting vaccine used, both by individual cases and in the form of a weekly report, has been developed and physicians will be asked to follow the uniform reporting procedure.

Doctor Edward B. Shaw, chairman of the medical advisory board, and Doctor Francis E. West, chairman of the Association's Commission on Public Health and Public Agencies, also urged that the program developed by the State Department of Public Health be approved and that the Association encourage its members to cooperate in the vaccine distribution and reporting program.

On motion duly made and seconded, it was voted to approve the plan of vaccine distribution outlined by Doctor Merrill.

On motion duly made and seconded, it was voted to encourage members of the Association to cooperate in the distribution and reporting program by furnishing them with a summary of the plan.

(b) In response to a question, Doctor Merrill outlined the system used for allocating federal funds for aid in hospital construction. He pointed out that priorities for available funds are set according to the needs of specified areas and that one area might occupy a higher priority position one year than the next, in accordance with changes in conditions in other areas. Doctor Merrill pointed out that more than $100,000,000 in applications are now on file and that the funds available are about $5,000,000 per year at this time.

8. *California Physicians' Service:*

Doctor Francis T. Hodges, president of California Physicians' Service, reported that as of July 31, 1955, C.P.S. had 726,491 beneficiary members. He also reported that C.P.S. is working with other Blue Shield plans for the development of national enrollment plans which could cover nationwide groups of employees.

On the $6,000 C.P.S. income ceiling, Doctor Hodges pointed out that 32 of the 49 counties in northern California had approved the new ceiling but that only Ventura, Orange and San Bernardino Counties, among the nine southern counties, had done so. In the northern area, he said, 59 new groups, numbering more than 8,000 members, have been enrolled under the new income ceiling.

Doctor Hodges reported that a new family contract plan has been developed for individual enrollments and that experience under this plan has been good. A new contract, covering the year ending June 30, 1956, has been signed with the Veterans' Administration, he said. Doctor Hodges also discussed the consideration of plans to provide care for indigents and for school students.

9. *Committee on Legislation:*

Doctor Dan O. Kilroy, chairman of the Committee on Legislation, reported on the accomplishments of the recent legislative session. Messrs. Ben H. Read and Eugene Salisbury of the Public Health League of California, supplemented the report.

10. *Public Relations:*

Mr. Ed Clancy, director of public relations, discussed a pamphlet which has been sent to all members, offering supplies of pamphlets designed to improve physician-patient relationships. Discussion was also held on a pamphlet produced for a medical school alumni organization.

11. *Rollen Waterson Associates:*

Mr. Rollen Waterson discussed the importance of the $6,000 income ceiling and the new individual contracts of California Physicians' Service in maintaining high standards of prepaid medical care insurance.

12. *Commission on Medical Services:*

(a) Doctor Hollis L. Carey, chairman of the Commission on Medical Services, reported that the relative value study undertaken by a subcommittee headed by Doctor Francis J. Cox had been brought to a point where consultation with various other groups of physicians was indicated. He asked authority to present this study to such groups for their criticisms and suggestions; on motion duly made and seconded, such authority was granted.

(b) Doctor Carey also reported that the uniform insurance claims forms would be forwarded to all members of the Association in the very near future and that copies of these forms would be immediately available to all members.

(c) Doctor Carey reviewed the indigent care program undertaken in Butte County several years ago, pointing out that in three years the patients under the care of their own physicians had been treated at a cost almost identical with what the cost had previously been to the county authorities but that, during this time, care of these patients by private physicians had resulted in the saving of 2,200 hospital days; on a cost estimate of $20 per day, these savings to the county totaled $44,000.

13. *California Medicine:*

(a) Mr. Hunton suggested that the annual reports from county societies which have previously been run in the journal be eliminated and the district councilors be asked to include in their reports the important events in county societies in their districts. On motion duly made and seconded, it was voted to follow this procedure.

(b) Mr. Hunton also suggested that the verbatim transcript of the House of Delegates proceedings be dispensed with and a summary of proceedings be substituted; the complete transcript would be available in the Association office. On motion duly made and seconded, it was voted to include this recommendation to the House of Delegates in the report of the Council.

(c) A request from the Nevada State Medical Association for the appearance of a monthly page of announcements in CALIFORNIA MEDICINE was considered and, on motion duly made and seconded, was referred to the Executive Committee.

14. *Cancer Commission:*

(a) Doctor Daniels presented a pamphlet of the revised rules of the Cancer Commission for the operation of tumor boards. On motion duly made and seconded, these rules were approved.

(b) On motion duly made and seconded, the Cancer Commission was authorized to execute a contract setting forth the terms of employment for the medical director.

15. *Meeting Dates Conflict:*

Doctor Charnock reported that the change in meeting plans for the 1956 Annual Session had created a conflict with the Western Section of the American Urological Association. He suggested that the Section on Urology plan a token meeting on April 28, 1956, to be adjourned to the other meeting and that section officers be continued in office for another year. On motion duly made and seconded, it was voted to follow this procedure and to authorize the mailing of a letter to the urological members, outlining the plan.

16. *House of Delegates Resolutions:*

(a) Two resolutions referred to the Council by the House of Delegates, introduced by Doctor Herbert C. Moffitt, Jr., of San Francisco were discussed, one relating to the opening of exhibits to the public and the other to teaching material. On motion duly made and seconded, it was voted to invite Doctor Moffitt to appear before the next meeting of the Council to discuss these resolutions.

(b) A resolution by Doctor Edward C. Rosenow, Jr., referring to postgraduate medical teaching and referred to the Council by the House of Delegates, was discussed. On motion duly made and seconded it was voted to refer this resolution to the Committee on Postgraduate Education for continuing study.

17. *County Fair Exhibits:*

Doctor McPharlin presented a request from the Santa Clara County Medical Society for creation of a public relations exhibit which could be made available to county societies for showing at local county fairs. On motion duly made and seconded, it was voted to refer this request to the public relations department for consideration and report.

18. *Conference on Physicians and Schools:*

Doctor Daniels requested authority for Mr. Thomas and himself to attend a Chicago meeting planned by the American Medical Association on conferences on physicians and schools. On motion duly made and seconded, such authority was voted.

19. *United Crusade Request:*

Doctor Shipman presented a request from the United Crusade of San Francisco for Association approval of its fund-raising campaign. Doctor Shipman had replied to the effect that he believed this to be a local matter not subject to consideration by a statewide organization. On motion duly made and seconded, this response was approved.

20. *Annual Session Meeting Places:*

Discussion was held on the places for coming annual sessions. On motion duly made, seconded and amended, it was voted that the Council's policy should be to hold two Annual Sessions in southern California and one in the northern area. In accordance with this decision, the 1956 and 1957 meetings will be planned for Los Angeles and the 1958 meeting for San Francisco.

21. *Death of Councilor Randel:*

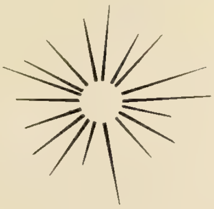
Chairman Lum suggested that the Delegates from the Sixth Councilor District be requested to hold a caucus to select a successor for the vacancy caused by the August 19th death of Doctor Henry A. Randel of Fresno. The Council approved this suggestion and authorized the president and the council chairman to select successors to the several committee posts occupied by Doctor Randel.

The secretary was requested to prepare a suitable resolution of sympathy to be sent to Mrs. Randel in behalf of the Council.

Adjournment:

The Council, having paid a silent tribute to Henry A. Randel, was adjourned at 4:45 p.m. out of respect to his memory.

DONALD D. LUM, M.D., *Chairman*
ALBERT C. DANIELS, M.D., *Secretary*



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In Memoriam

BOWMAN, ROBERT J. Died in Los Angeles, August 19, 1955, aged 61, of coronary artery disease. Graduate of Rush Medical College, Chicago, Illinois, 1923. Licensed in California in 1923. Doctor Bowman was a member of the Los Angeles County Medical Association.

✤

CUNNANE, THOMAS B. Died in Los Angeles, August 28, 1955, aged 61, of coronary thrombosis. Graduate of the College of Physicians and Surgeons, Los Angeles, 1917. Licensed in California in 1917. Doctor Cunnane was a member of the Los Angeles County Medical Association.

✤

HAMILTON, WILLIAM F. Died in Van Nuys, August 1, 1955, aged 71, of congestive heart failure. Graduate of the University of Louisville School of Medicine, Kentucky, 1911. Licensed in California in 1943. Doctor Hamilton was a member of the Los Angeles County Medical Association.

✤

KELSEY, JOEL S., JR. Died in Los Angeles, August 15, 1955, aged 70, of coronary occlusion. Graduate of the Hahnemann Medical College and Hospital of Philadelphia, Pennsylvania, 1909. Licensed in California in 1920. Doctor Kelsey was a member of the Los Angeles County Medical Association.

✤

LEFKIN, PHILIP. Died in Duarte, August 4, 1955, aged 46, of thyroid carcinoma. Graduate of Rush Medical College, Chicago, Illinois, 1937. Licensed in California in 1937. Doctor Lefkin was a member of the Los Angeles County Medical Association.

✤

MOORE, JOHN M. Died in San Francisco, September 6, 1955, aged 51, of coronary artery disease. Graduate of the University of California Medical School, Berkeley-San Francisco, 1932. Licensed in California in 1935. Doctor Moore was a member of the San Francisco Medical Society.

✤

OWSLEY, ROBERT W. Died in San Francisco, August 15, 1955, aged 43. Graduate of the Indiana University School of Medicine, Bloomington-Indianapolis, 1934. Licensed in California in 1939. Doctor Owsley was a member of the Los Angeles County Medical Association.

✤

PAVLIDES, THEODOSIOS D. K. T. Died in Fresno, August 23, 1955, aged 66. Graduate of the National University of Athens School of Medicine, Greece, 1911. Licensed in California in 1925. Doctor Pavlides was a member of the Fresno County Medical Society.

✤

RANDEL, HENRY A. Died in Morro Bay, August 19, 1955, aged 53. Graduate of Northwestern University Medical School, Chicago, Illinois, 1929. Licensed in California in 1929. Doctor Randel was a member of the Fresno County Medical Society.

✤

SWIFT, ROBERT H. Died in San Francisco, July 28, 1955, aged 38, of acute leukemia. Graduate of Washington University School of Medicine, St. Louis, Missouri, 1943. Licensed in California in 1944. Doctor Swift was a member of the Alameda-Contra Costa Medical Association.

✤

YEISLEY, CARL J. Died in Bakersfield, August 3, 1955, aged 61, of coronary occlusion. Graduate of the University of Michigan Medical School, Ann Arbor, 1920. Licensed in California in 1929. Doctor Yeisley was a member of the Kern County Medical Society.

Henry A. Randel

IN THE PASSING of Dr. Henry A. Randel, the medical profession of Fresno and the community as a whole have suffered a great and irreplaceable loss. Doctor Randel died suddenly on August 19, 1955.

Doctor Randel was born on April 16, 1902, in Benwick, Pennsylvania. He completed his premedical studies at the University of Chicago and was graduated in medicine from the Northwestern University School of Medicine in 1929. After interning at the Fresno County General Hospital, he entered the practice of medicine in 1930, and thus began the successful fulfillment of his life's ambition.

From the very start, the personality and influence of this young physician began to be felt by the people of Fresno and by his confreres. He was a champion for good medicine and a pillar of strength to his colleagues. His kind understanding of the problems of both colleague and patient was manifest by the many who sought his advice and consultation.

He served upon many committees and held many offices. His untiring efforts on behalf of rural health in the San Joaquin Valley will never be forgotten. In 1946 he was elected president of the Fresno County Tuberculosis Association after having served 12 years as a director of that organization. He also formerly headed the Fresno County Medical Society and the California Trudeau Society.

He served as Vice-Speaker of the House of Delegates of the California Medical Association in 1951-52. Last year he was named to the American Medical Association's Rural Health Council and served as chairman of the California Medical Association's Committee on Rural Health.

With the passing of Doctor Randel we have all lost a model medical practitioner, a man with high ideals, a man whose word was his bond, and above all, a fearless physician who dedicated his life to the principles for which medicine stands.

To his widow, Mrs. Christine Randel, and the surviving members of the family, we tender our heartfelt sympathy and express our own great sorrow at the passing of such an outstanding husband, father and member of our medical fraternity.

Doctor Randel has earned his future reward and we who survive will long remember this man, for he was one of the pillars upon which medicine rested in this community. His memory will serve as inspiration to those who aspire to perform so great a public service.

FRED E. COOLEY, M.D.

CALIFORNIA MEDICAL ASSOCIATION

Annual Meeting

Ambassador Hotel

LOS ANGELES

April 29 - May 2, 1956

Papers for Presentation

If you have a paper that you would like to have considered for presentation, it should be submitted *to the appropriate section secretary* (see list on this page) not later than November 19, 1955.

Scientific Exhibits

Space is available for scientific exhibits. If you would like to present an exhibit, please write immediately to the office of the California Medical Association, 450 Sutter Street, San Francisco 8, for application forms. To be given consideration by the Committee on Scientific Work, the forms, completely filled out, must be in the office of the California Medical Association not later than December 1, 1955. (No exhibit shown in 1955, and no individual who had an exhibit at the 1955 session, will be eligible until 1957.)

SCIENTIFIC PAPERS

SCIENTIFIC EXHIBITS

PLANNING MAKES PERFECT

AN EARLY START HELPS

SECRETARIES OF SCIENTIFIC SECTIONS

ALLERGY	**William J. Kerr, Jr.**	711 D Street, San Rafael
ANESTHESIOLOGY	**Robert W. Churchill**	1180 Montgomery Drive, Santa Rosa
DERMATOLOGY AND SYPHILOLOGY	**Anker K. Jensen**	1052 West Sixth Street, Los Angeles 17
EAR, NOSE AND THROAT	**E. Gordon McCoy**	490 Post Street, San Francisco 2
EYE	**Channing W. Hale**	174 Nemaha Street, Pomona
GENERAL MEDICINE	**Harold C. Sox**	300 Homer Avenue, Palo Alto
GENERAL PRACTICE	**T. Jackson Laughlin**	10910 Riverside Drive, North Hollywood
GENERAL SURGERY	**Orville F. Grimes**	U. C. Medical Center, San Francisco 22
INDUSTRIAL MEDICINE AND SURGERY	**Homer S. Elmquist**	629 So. Westlake Avenue, Los Angeles 57
OBSTETRICS AND GYNECOLOGY	**Ralph C. Benson**	U. C. Medical Center, San Francisco 22
ORTHOPEDICS	**A. B. Sirbu (Acting Secretary)**	450 Sutter Street, San Francisco 8
PATHOLOGY AND BACTERIOLOGY	**Justin R. Dorgeloh**	378 Thirtieth Street, Oakland 9
PEDIATRICS	**Moses Grossman**	U. C. Medical Center, San Francisco 22
PSYCHIATRY AND NEUROLOGY	**William F. Northrup, Jr.**	696 East Colorado Street, Pasadena 1
PUBLIC HEALTH	**Wilber J. Menke, Jr.**	City Hall, Pasadena 1
RADIOLOGY	**Austin R. Wilson**	540 North Central Avenue, Glendale 3

WOMAN'S AUXILIARY
TO THE CALIFORNIA MEDICAL ASSOCIATION

The Part Played by Your Auxiliary in Civil Defense

In the event of disaster, doctors' wives may face a significant and challenging responsibility: They may expect the full burden of home defense to fall on their shoulders. With their husbands at community disaster centers outside the home, the survival of their children and home personnel may well depend on their knowing what to do.

A Civil Defense program is, therefore, of vital importance to members of the Woman's Auxiliary. Our need of authoritative information is perhaps even greater than that of the women who may hope to have their husbands help them in a time of attack.

Recognizing the growing urgency of this need, your Auxiliary in 1952 set up a Civil Defense Committee with a three-fold purpose: (1) to cooperate with the Office of Civil Defense; (2) to familiarize its members with current civil defense procedures; (3) to interest its members in their local civil defense activities.

Our last year's chairman of Civil Defense, Mrs. Louis Olker of Chico, explains how your auxiliary committee has been set up to cope with the problems:

> "Each county president appoints a Civil Defense chairman to attend Civil Defense Council meetings as a member of the local council. The chairman familiarizes herself with the local program for the Auxiliary area and, in turn, reports all important data to the general Auxiliary membership at a regular meeting on Civil Defense.
>
> "The Auxiliary is well aware that there are distinctive geographical problems in each area. Hence the planning for each area must differ—and there must be specifically designed plans for action in each Auxiliary locale.
>
> "Since it is to the distaff side of the family that immediate action will fall at the time of an atomic strike, education in that direction should be of primary importance. Also, elaborate plans are not necessary."

Mrs. Olker has gleaned the following "rules for survival" from her year's experience, for Auxiliary—as well as general—use:

1. With the advent of the H-bomb, the entire state of California will become a fall-out area in which evacuation for the first period will become secondary in most instances to the immediate need for self-preservation, and will require a longer period of time than was first anticipated. Therefore, food, first aid, and other supplies will be needed in greater quantities to last three weeks rather than the three days formerly advocated.
2. A foxhole will still serve in extreme emergency as protection from heat, flash and other side effects of explosion.
3. A family underground shelter should be planned and stocked in advance.
4. A battery-type radio will be indispensable for receiving local directives broadcast from specially built Civil Defense trucks in each region.
5. A bar of detergent soap will serve many more purposes than the bottle of antiseptic originally called for among first aid supplies.
6. Clean bedsheets will have more uses than prepackaged gauze bandages.
7. Supplies in the deep freeze can be used.
8. Articles such as canned heat and flashlights with extra batteries can be stored easily.
9. Concentrated foods and small first aid kits should be ready to carry compactly should the order to evacuate be given.

Mrs. C. R. Kroeger, our chairman of Civil Defense for the current year, is stressing to our membership the importance of being familiar with the various "alerts." The recent and short-lived yellow alert staged by the Air Force in May pointed up the necessity of both Civil Defense personnel and the public knowing what to do.

Your Auxiliary's Civil Defense program is, of course, keyed in with that of the Woman's Auxiliary to the A.M.A. The national Auxiliary is this year fostering a program of home training which would see at least one member in each doctor's family trained in home nursing or first aid. We are endorsing and working for this project, too.

There is, unfortunately, less enthusiastic support of your Auxiliary's Civil Defense program than there is of many other Auxiliary activities. This is probably owing to the general public apathy, the necessarily frequent changes in the program of the Civil Defense Administration, and the difficulty of encompassing and accepting the enormous complexities of H-bomb defense.

In recognition of this situation, the current program of your Woman's Auxiliary—coordinated with that of the Woman's Auxiliary to the A.M.A.—is aiming for a ten per cent active participation in Civil Defense among its members' families. This means a goal this year of at least ten per cent member-homes with adequate shelters and food supplies; ten per cent of member-homes with one family member trained in first aid or home nursing. We hope that once this goal is achieved, we can look forward to ever greater participation in our vitally important Civil Defense program.

NEWS & NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

The third annual convention of the **California League for Nursing** will be held at the Hotel Leamington, Oakland, October 20-22. At an open meeting Ruth B. Freeman, president of the National League for Nursing and associate professor of public health administration at Johns Hopkins, will address the convention on the trends and plans ahead of nursing service.

LOS ANGELES

The new officers of the **Los Angeles Radiological Society** for 1955-56 are as follows: President, Dr. George Jacobson, Los Angeles; vice-president, Dr. Hubert J. Pichard, Long Beach; treasurer, Dr. Samuel C. Kahlstrom, Los Angeles; secretary, Dr. Richard A. Kredel, Pasadena.

* * *

Grants totaling $7,400 for **continuing studies of nephrosis** have been awarded to five Los Angeles physicians by the Los Angeles chapter of the National Nephrosis Foundation. The recipients are Dr. Robert I. Boyd, University of Southern California department of medicine; Dr. George N. Donnell, Children's Hospital; Dr. Daniel H. Simmons, University of California department of medicine; Dr. Yale J. Katz, University of Southern California department of medicine, and Dr. Hans H. Zinsser, University of Southern California department of surgery.

* * *

Dr. Eugene F. Hoffman, Los Angeles, recently was appointed to the medical advisory board of the Sears-Roebuck Foundation. The board, which is made up of 16 medical authorities from all parts of the United States, advises the foundation on medical research and education programs.

SAN FRANCISCO

The first western divisional convention of the **American Psychiatric Association** will be held in San Francisco at the St. Francis Hotel, October 27-30, 1955, as a joint meeting with the West Coast Psychoanalytic Societies.

The Northern California Psychiatric Society and the San Francisco Psychoanalytic Society will be the host societies.

This is the first time the American Psychiatric Association has held a regional meeting and if the San Francisco meeting is successful, more will be held in the future throughout the United States.

Further information may be obtained from Dr. Alfred Auerback, president of the Northern California Psychiatric Society, or Dr. Thomas A. Gonda, secretary-treasurer, 2351 Clay Street, San Francisco.

* * *

The Allergy Foundation of Northern California has been granted $3,500 from the estate of Joseph A. Murphy by the San Francisco Foundation to be used for a field survey of important pollinating plants in northern California. The purpose of the present survey is to determine the distribution of plants commonly producing asthma, hay fever, eczema, and other allergic diseases in this area. It is estimated that the survey will take approximately two to two and a half years to complete. The results and findings of the survey are to be published in book form, available to the medical profession.

* * *

Dr. Dohrmann K. Pischel, clinical professor of surgery at Stanford School of Medicine, has been appointed head of the division of ophthalmology in the department of surgery to succeed Dr. Edward Maumenee who resigned to accept a position as director of the department of ophthalmology at Johns Hopkins.

SAN MATEO

Full accreditation by the Joint Commission on Accreditation of Hospitals was received last month by the **Peninsula Hospital,** Burlingame.

SANTA CLARA

O'Connor Hospital, San Jose, was notified last month that it has been given full accreditation by the Joint Commission on Accreditation of Hospitals. Notification was given in a letter to Sister Helen, administrator of the hospital, from Dr. Kenneth Babcock, director of the Joint Commission.

GENERAL

Evaluation of practical experience with the **Salk polio vaccine** by key figures in its development will be a feature of the 83rd annual meeting of the American Public Health Association and meetings of 40 related organizations in the Kansas City, Missouri, Municipal Auditorium, November 14-18. Participants in a panel discussion on Thursday afternoon, November 17, will include Dr. Jonas E. Salk, University of Pittsburgh, who developed the vaccine; Dr. Thomas Francis, Jr., University of Michigan, who directed evaluation of field tests which led to its adoption; Dr. Leonard A. Scheele, Surgeon General, U. S. Public Health Service; Dr. Hart E. Van Riper, medical director of the National Foundation for Infantile Paralysis, and Dr. Robert E. DeFries, University of Toronto. The moderator will be Dr. Malcolm E. Merrill, director of Public Health, State of California.

* * *

The Western Institute on Epilepsy and the Western Society of Electro-Encephalography will hold their 1955 annual meetings November 10-12 at the Hotel Westward Ho, Phoenix, Arizona. The meetings are cosponsored by the Arizona chapter of the American Academy of General Practice and the University of Utah School of Medicine. Dr. Wilder Penfield, director of the Montreal Neurological Institute, will be a guest speaker.

* * *

Trustees of the **Caleb Fiske Prize** of the Rhode Island Medical Society have announced as the subject for this year's dissertation, "Use of Radioactive Isotopes in the Treatment and Investigation of Disease." The dissertation must be typewritten, double spaced, and should not exceed 10,000 words. A cash prize of $350 is offered.

Complete information regarding the contest may be obtained from the Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis Street, Providence 3, Rhode Island.

POSTGRADUATE
EDUCATION NOTICES

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association. In order that they may be listed here, please send communications relating to your future medical or surgical programs to: Mrs. Margaret H. Griffith, Assistant Director, Postgraduate Activities, California Medical Association, 417 South Hill Street, Los Angeles 13.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Basic Course in Ophthalmology, Wednesdays, October 19, 1955, to May 23, 1956. Fee: $125.

Application of Principles of Industrial Medicine to Private Practice, Wednesday evenings, October 19 to December 14, 1955. Fee: $40.

Aviation Medicine, Wednesday, Thursday and Friday, October 26, 27, and 28, 1955. Fee: $50.

Pediatrics, Thursday, Friday and Saturday, October 27, 28 and 29, 1955. Fee: $50.

Three Symposia: SAN DIEGO, Wednesdays, October 26, November 2 and 9, 1955—(a) Burns, one-half day. Repair of Superficial Wounds, one-half day; (b) Radioisotopes; (c) Surgery of the Hand. Fee: $17.50 for one, or $50 for all three.

Contact: Thomas H. Sternberg, M.D., Assistant Dean for Postgraduate Medical Education, U.C.L.A., Los Angeles 24.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

In San Francisco:

Conference on Applied Therapeutics—October 17, 18 and 19.

Conference on Gynecology and Obstetrics—October 20 and October 21.

Ophthalmological Conference—December 5 to December 7.

In Berkeley:

Postgraduate Institute—Wednesday evenings, Herrick Memorial Hospital, October 19 through November 23.

Contact: Seymour M. Farber, M.D., Head, Postgraduate Instruction, Office of Medical Extension, University of California Medical Center, San Francisco 22.

UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES

In Los Angeles:

No. 873: Cardiac Resuscitation. Sponsored by the Los Angeles County Heart Association. Each Wednesday throughout the year, U.S.C. Medical Research Building. $30 per session.

No. 878: Physical Medicine for General Practitioners. Every morning, October 31 to November 10. Forty hours. Fee: $50.

Contact: Phil R. Manning M.D., Director of Medical Extension Education, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles 33.

COLLEGE OF MEDICAL EVANGELISTS

Anesthesiology. Daily, full-time, four months, beginning each four months. Fee: $300.

Contact: Chairman, Section on Graduate and Postgraduate Medicine, College of Medical Evangelists, 1720 Brooklyn Ave., Los Angeles 33.

CALIFORNIA MEDICAL ASSOCIATION, POSTGRADUATE ACTIVITIES CIRCUIT COURSES

NORTH COAST CIRCUIT in association with Stanford University School of Medicine:

Eureka—Monday, October 17, 24, 31, November 7.
Ukiah—Tuesday, October 18, 25, November 1, 8.
Woodland—Wednesday, October 19, 26, November 2, 9.
Napa—Thursday, October 20, 27, November 3, 10.

SACRAMENTO VALLEY CIRCUIT in association with University of California School of Medicine, San Francisco:

Dunsmuir—Monday, October 17, 24, 31, November 7.
Chico—Tuesday, October 18, 25, November 1, 8.
Marysville—Wednesday, October 19, 26, November 2, 9.
Auburn—Thursday, October 20, 27, November 3, 10.

POSTGRADUATE INSTITUTES

SOUTHERN COUNTIES in association with the University of Southern California School of Medicine, January 19-20, 1956, at Laguna Beach.

WEST COAST COUNTIES in association with College of Medical Evangelists, March 1-2, 1956, in Carmel.

NORTH COAST COUNTIES in association with University of California School of Medicine, San Francisco, mid-March, 1956, in Santa Rosa.

SAN JOAQUIN VALLEY COUNTIES in association with the University of California School of Medicine, Los Angeles, April 5 and 6, 1956, in Fresno.

SACRAMENTO VALLEY COUNTIES in association with Stanford University School of Medicine, June 21, 22, 1956, at Lake Tahoe.

Contact: C. A. Broaddus, M.D., Director of Postgraduate Activities, P.O. Box A-1, Carmel, California, or Mrs. Margaret H. Griffith, Assistant Director, California Medical Association, 417 So. Hill St., Los Angeles 13.

Medical Dates Bulletin

OCTOBER MEETINGS

STATE BOARD OF MEDICAL EXAMINERS Written Examination, Sacramento, October 17-20.†

Mid-October—AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY Examinations, San Francisco.
Contact: David A. Boyd, M.D., Secretary, 102-110 Second Avenue, S.W., Rochester, Minn.

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION, 38th Annual Conference and Institute. Sheraton-Palace Hotel, San Francisco, October 25 to 28.
Contact: Henrietta McNary, OTR, president, American Occupational Therapy Association, 33 W. 42nd Street, New York 36, N. Y.

WESTERN DIVISIONAL CONVENTION OF AMERICAN PSYCHIATRIC ASSOCIATION, joint meeting with the West Coast Psychoanalytic Societies. St. Francis Hotel, San Francisco, October 27 to 30.

Contact: Alfred Auerback, M.D., president, Northern California Psychiatric Society, 450 Sutter St., San Francisco, or Thomas A. Gonda, M.D., secretary-treasurer, 2351 Clay St., San Francisco.

NOVEMBER MEETINGS

AMERICAN MEDICAL ASSOCIATION Clinical Session, 1955, in Boston, November 29 to December 2, 1955.

CITY OF HOPE MEDICAL CENTER, Newer Developments in the Diagnosis and Treatment of Cancer, November 28, 29, 30. All physicians invited to attend.

Contact: Leo G. Rigler, M.D., City of Hope Medical Center, Duarte, Calif.

STATE BOARD OF MEDICAL EXAMINERS Oral Examination for Reciprocity Applications, San Francisco, November 12.†

STATE BOARD OF MEDICAL EXAMINERS Oral and Clinical Examinations for Foreign Medical School Graduates, San Francisco, November 13.†

DECEMBER MEETINGS

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, December 2, 9:30 a.m.* Prenatal Problems, Departments of Obstetrics, Anesthesia, Pediatrics and Public Health, participating.

REGIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS, San Jose, December 2 and 3.

Contact: Talcott Bates, M.D., 920 Cass Street, Monterey.

AMERICAN COLLEGE OF CHEST PHYSICIANS, Ambassador Hotel, Los Angeles, December 5-10. Los Angeles Postgraduate Course on Diseases of the Chest.

Contact: Alfred Goldman, M.D., Chairman, 416 North Bedford Drive, Beverly Hills.

JANUARY MEETINGS

LOS ANGELES MIDWINTER MEDICAL CONVENTION, January 3, 4, 5, 1956, Biltmore Hotel, Los Angeles. An 85th anniversary, sponsored by Los Angeles County Medical Association.

Contact: Jerry L. Pettis, Public Relations Counsel, Los Angeles County Medical Association, 1925 Wilshire Blvd., Los Angeles 57. Telephone DUnkirk 5-1581.

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, January 14, 1956.* Pediatric Surgery, with special emphasis on diagnosis, referral, preparation, pre- and postoperative care.

SPRING MEETINGS

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, March 17, 1956.* Morning: Dermatology. Afternoon: Nutritional problems peculiar to modern pediatrics.

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, April 14, 1956.* Behavior Problems and Childhood Psychiatry.

CALIFORNIA MEDICAL ASSOCIATION ANNUAL MEETING, Ambassador Hotel, Los Angeles, April 29-May 3, 1956.

Contact: John Hunton, Executive Secretary, 450 Sutter St., San Francisco 8, or Ed Clancy, Director of Public Relations, 417 S. Hill St., Los Angeles 13.

AMERICAN COLLEGE OF PHYSICIANS 37TH ANNUAL SESSION, Los Angeles, April 16-20, 1956.

Contact: George C. Griffith, M.D., General Chairman, Box 25, 1200 N. State St., Los Angeles 33.

CALIFORNIA HEART ASSOCIATION ANNUAL MEETING AND SCIENTIFIC SESSION, La Playa Hotel, Carmel, May 18 to 20, 1956.

Contact: Alan Croft Blanchard, field director, California Heart Association, 1428 Bush Street, San Francisco 9.

**For registration or information, contact:* Gertrude Jones, M.D., Children's Hospital, San Francisco.

†*For information contact:* Louis E. Jones, M.D., secretary-treasurer, California State Board of Medical Examiners, Room 536, 1020 N Street, Sacramento. (Note: Applications must be on file at least two weeks before examination dates.)

THE PHYSICIAN'S *Bookshelf*

HANDBOOK OF TREATMENT. Harold Thomas Hyman, M.D. J. B. Lippincott Company, Philadelphia, 1955. 511 pages, $8.00.

The introduction states that this book is intended for convenient and realistic use by general practitioners and specialists. The author has attempted to produce an accurate and concise guide in therapy. The table of contents is presented alphabetically and the entire book follows in this order (with synonyms in parenthesis below the chosen title).

The plan of presentation is the author's own. Each subject opens with a brief review of the general principles considered in it. Following a general statement the therapy is catalogued under the categories Immediate Care, Continuing Care (favorable course), Continuing Care (unfavorable course), Continuing Care (progressively unfavorable course). In the latter the practitioner, "mustering every defensive weapon in his therapeutic armamentarium . . . battles to gain mastery over those forces that threaten the well being of his patient."

There is no doubt that the amazing Dr. Hyman has given us an amazing amount of factual information compressed into a comparatively small volume of some 500 pages. This volume can be very useful to the general doctor once he masters the particular style and arrangement of the contents. However, he—like the reviewer—may find it hard to stomach the consistently authoritarian and dogmatic presentation.

And there are occasional slipups: The premature damning of tetracyclin (page 434) discloses that the author hasn't kept up quite well enough with the literature on the broad spectrum antibiotics. The reviewer is unable to understand the author's repeated preference for Benzedrine over the much less symptom producing Dexedrine.

* * *

MANAGEMENT OF ADDICTIONS. Edward Podolsky, M.D., Editor. Philosophical Library, New York, 1955. 413 pages, $7.50.

This volume contains 35 short chapters which are devoted to the problems of addiction to alcohol, sedatives and narcotics. Each chapter is a complete article and, in addition, most contain a summary by the contributor. Many of the articles are reprints originally published in 19 of the most widely read medical journals, and are written by the best authorities in their respective fields. Dr. Podolsky grouped and edited these articles in a way that provides a continuity of subject matter.

In the discussion of alcoholism, its importance is emphasized in that it is the fourth American disease, following heart disease, cancer and tuberculosis. The incidence is apparently increasing, especially among young people and women. It causes a monetary loss of one billion dollars a year, and involves between four and five million people. In addition to the management of addiction to alcohol, the causes are discussed from various viewpoints, particularly psychological and physiological. The management of alcohol addiction includes conditioned reflex therapy, endocrine therapy, psychotherapy, hypnotherapy, use of Alcoholics Anonymous, and the articles describe the action and uses of various drugs, tolserol, antibuse, benadryl, mebaral, disulfiran, barbiturates, calcium and of carbon dioxide therapy. The genetotrophic approach, which is a comparatively new concept, is still in the research stage. Time and further investigation will probably reveal its merits. The total push method stresses the emotional, physical, environmental, recreational and associated activities. All the contributors stress the fact that alcoholism cannot be treated with one drug, or one method, but is most effectively managed by a combination of therapies.

Part two deals in much the same manner with the management of narcotic addiction. The merits of rapid or slow withdrawal, and of various medications used, are discussed. Treatments with electric shock, deep sleep, benadryl, barbitals and substitute therapies are reviewed.

The volume should be of real value to all physicians, general practitioners as well as specialists, who are treating addictions. Brief case histories are given to illustrate all the various methods of treatment and are well documented. The treatments are carefully itemized with the type of medication to give, and with the exact amounts indicated. Adverse reactions are also effectively described. Psychotherapeutic procedures are briefly detailed. The general subject matter presents a picture of the problem that would be of value and interest to the social worker, psychologist and to others interested in addiction management.

There is some overlapping in the collection of papers which is unavoidable when there are between 40 and 45 contributors. However, it probably indicates that there is a gradual swing to a more uniform treatment.

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PRACTICAL MEDICAL MYCOLOGY. Edmund L. Keeney, A.B., M.D., Formerly in Charge of the Mycology Laboratory and Instructor in Medicine, Johns Hopkins University School of Medicine. Charles C. Thomas, Publisher, Springfield, Illinois, 1955. 145 pages, $4.50.

Practical Medical Mycology is a brief, easy-to-read book on the fungi pathogenic to man. It is designed for the practicing physician, teacher and student and adequately fulfills the need for a small, compact book to clarify subject matter that is rapidly becoming of greater interest in medicine.

Diagrammatic illustrations of each mycotic disease greatly aid the reader to assimilate information that is often written using forbidden, esoteric nomenclature. Each disease is discussed as to history, incidence of infection, symptomatology, mycology, skin and serological tests, and treatment. The brief chapters on the spores of fungi as allergens and on poisonous fungi will be of general interest.

The lack of detailed mycological descriptions, photomicrographs and sections on pathology make this book of little use for the laboratory or for those readers having a more than casual interest in mycology.

ANNUAL REVIEW OF MEDICINE — Volume 6 — 1955. David A. Rytand, Editor and John Anderson, Associate Editor, Stanford School of Medicine, Annual Reviews, Inc., Stanford, Calif., 1955. 459 pages, $7.00.

In a scholarly introduction Bloomfield discusses the problem of keeping up with the medical literature: "The result of this vast plethora of medical writing, now completely out of hand from the standpoint of the potential reader, is a frantic attempt on all sides to concentrate, abbreviate, abstract and condense a subject in such fashion that the doctor has some faint chance of covering the ground. Some of these attempts are good and useful, others unfortunately introduce a new form of distemper: The reviewer or compiler faced by a vast and often highly specialized literature issues an article which is little more than a list of titles, and which is really almost useless.

"It is obvious then that the reviewer must carefully select the useful and important contributors; he must weave them into something of a coherent whole. He must assume that his readers are not already familiar with the intimate details of the subject . . . It is his task to synthesize the important advances in a subject in such fashion that a vivid story captures the reader's interest."

These conditions are fulfilled better in the Annual Review of Medicine than in any of its compeers with which this reviewer is familiar. Designed especially for those in teaching and research it can be useful to students and to practicing physicians with an established background of knowledge. The topics are covered in a manner both selective and directed, and for the most part thorough and interesting. The volume is heartily recommended.

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DIFFERENTIAL DIAGNOSIS OF INTERNAL DISEASES—Clinical Analysis and Synthesis of Symptoms and Signs on Pathophysiologic Basis — 2nd Revised Edition. Julius Bauer, M.D., F.A.C.P., Clinical Professor of Medicine, College of Medical Evangelists, Los Angeles. Grune & Stratton, New York, 1955. 987 pages, $15.00.

This is the second edition of a book already recognized as a stimulating work on signs and symptoms as applied to differential diagnosis of disease. The subtitle is stated as "Clinical Analysis and Synthesis of Symptoms and Signs on Pathophysiologic Basis." In line with this the reader is oriented early in the book by a scholarly examination of signs and symptoms; the most likely mechanisms involved in their occurrence are discussed and liberally illustrated with cases drawn from the author's own experience. The known facts and basic principles enumerated in earlier chapters are applied later to disorders of various systems. A large mass of material has been organized and compressed without loss of any of the essentials and is presented by the author in a readable narrative style. Throughout, the author has retained what is established and useful in a differential diagnosis of disease and has flavored this with little known or unusual information culled from the world literature and his own wide experience. Included also are new methods, disease entities, and mechanisms which have been elucidated since the first edition of this book (some examples are agammaglobulinemia as related to infections, cat scratch fever, chlorpromazine jaundice as diseases mentioned; and urinary catechols in pheochromocytoma and radioactive gold in tumor localization as diagnostic techniques). Throughout, the reader feels stimulated to review the extensive and well chosen bibliography. The summaries recorded at the end of each chapter help fix the contents of the chapter in the reader's mind in a most gratifying manner.

Perhaps the chapter on electrocardiography may well have been omitted, since there are excellent books on the subject. It is difficult to see how electrocardiography can be profitably discussed in a few pages without accompanying photographs and illustrative tracings.

On occasion, the author after a well documented discussion of an established pathophysiological mechanism producing signs and symptoms will go beyond the implications of the supporting data to draw inferences in post hoc fashion. This serves to create a feeling of "patness" which one does not anticipate in a scientific work of this kind and thus subtly tends to tax, somewhat, the credulity of the reader. Additionally, the illustrative cases used by the author to emphasize his point on occasion do not seem pertinent to the discussion and tend to divert the reader from the subject at hand rather than to highlight the salient points.

When considered as a whole, however, this book presents a review of signs, symptoms and techniques concerned in a differential diagnosis of disease organized into an integrated system and written in a thoughtful manner with emphasis placed, properly, on clinical values and the more important and common disease entities. This reviewer feels that the author has succeeded in making this book an easily usable, effective teaching instrument; for anyone interested in reviewing the relative merits of the various factors entering into differential diagnosis of disease, this work provides excellent guidance.

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DOCTORS IN THE SKY—The Story of the Aero Medical Association. Robert J. Benford, M.D., Colonel, Medical Corps, United States Air Force. Charles C. Thomas, Publisher, 301 East Lawrence Ave., Springfield, Ill., 1955. 326 pages, $8.75.

"Doctors in the Sky" is a carefully documented history of the founding and development of the Aero Medical Association, the pioneer organization for aviation medicine in the United States. The difficulties encountered early in the days of aviation medicine are recalled in chronological order. The efforts to seek a rightful place for medicine in aviation, in keeping with the rapid development of aviation in the first half of the century, are revealed in painstaking detail, often, however, at the expense of the pace of the story. Colonel Benford has done an admirable job in describing the events associated with the Aero Medical Association. The biographies of its first 26 presidents are summarized in sequence as they take office.

Although this history will have a limited appeal, particularly to those men interested in aviation medicine, it will serve as a carefully recorded history for the Aero Medical Association. The format is excellent, the illustrations are good, and the style is pleasant. It will serve as a good reference for army, navy and civilian flight surgeons.

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WHEN MINDS GO WRONG—The Truth About Our Mentally Ill and Their Care in Mental Hospitals. John Maurice Grimes, M.D., formerly Staff Member of the Council on Medical Education and Hospitals, American Medical Association. The Devin-Adair Company, 23 East 26th Street, New York 10, N.Y., 1954. 246 pages, $3.50.

This is a revision of a work originally published in 1951. The author has made an extensive survey of mental hospitals. This book is largely concerned with a very bitter and detailed criticism of the institutions, the personnel and the politicians. There is also a brief presentation of the author's overly simplified theories of mental illness and a rather vague idealistic plan for a new type of therapeutic village to replace the present mental hospitals. There is undoubtedly much of truth in what the author says. However, the overwhelming, continued, wholesale condemnation of everyone except the author grows tiresome and the reviewer doubts if the book will be widely read or accomplish much.

HEART DISEASE—Its Diagnosis and Treatment—Second Edition. Emanuel Goldberger, M.D., F.A.C.P., Associate Attending Physician, Montefiore Hospital, New York. Lea & Febiger, Philadelphia, 1955. 781 pages, $12.50.

This book aims to encompass the entire field of diseases of the heart. It makes a valiant effort to accomplish this purpose within the not too voluminous space of 766 pages. Many important subjects are covered too briefly, and therefore a comprehensive clinical picture of many entities cannot be given nor is this a broad reference source.

The description of cardiac symptomatology and cardiac and pulmonary function tests is thorough and the relation to basic physiology is well expressed. There may be serious differences of opinion, however, from the author's expressed explanations of certain fundamental physiologic processes. The chapters on roentgenology, electrocardiography and ballistocardiography cover the essential features of these procedures competently for the brief space allotted.

The description of cardiac catheter findings, with an accompanying table, point out gross changes that may be expected in various cardiac defects, but this information only serves to indicate the usefulness of this procedure. Current knowledge of the significant and sometimes deceptive variations in pressures, blood flows and oxygen content is not presented. One desires a more definite appraisal by the author of the advantages and danger of certain therapeutic measures, rather than the frequent use of the general and weaker descriptive terms of "can" and "may." At times, however, the author expresses personal opinions which are in conflict with some currently well accepted concepts. Examples of these are rheumatic heart disease as a general rule is a poor obstetrical risk if the patient is over 35 years of age, and that the enlargement of the cardiac silhouette by roentgenogram in acute pericarditis is due to cardiac enlargement and not to pericardial fluid; that the low diastolic blood pressure in aortic insufficiency is due to "sucking blood back into the heart"; and that the primary therapy of mitral stenosis (presumably symptomatic) is medical and not surgical.

Certain statements are made which demand challenge, as for example: That emphysema without heart failure results in elevated venous pressure; that the Blalock-Taussig procedure is indicated for "pure" pulmonic valve stenosis with a patent foramen ovale; and that cyanosis (rather than systemic venous engorgement) is the distinctive clinical sign of Ebstein's Complex (erroneously indexed as Epstein's anomaly).

This book will serve to give the student, and those desirous of acquiring a basic knowledge of heart disease, a broad but brief coverage of the subjects. It includes in its 51 chapters a wide range of clinical entities, including the rheumatic defects; coronary artery disease; the congenital abnormalities; miscellaneous causes of myocardial disease; and the relation of surgery, pregnancy and employment to heart disease. It is well-indexed and contains short bibliographies following each chapter.

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MEDICINE FOR NURSES—Sixth Edition. W. Gordon Sears, M.D. (Lond.), M.R.C.P. (Lond.), Physician Superintendent, Mile End Hospital, London, Examiner to the General Nursing Council for England and Wales. Edward Arnold Publishers Ltd., London. Distributed by Williams and Wilkins Company, Baltimore, 1954. 520 pages, $4.00.

The sixth edition of this British textbook for nurses has been thoroughly revised with many sections rewritten, and consequently many of the deficiencies noted in the previous edition have been corrected. Treatment, particularly, has been brought up to date. Practically all of the newer drugs and concepts of therapy which the present day nursing student is likely to encounter are mentioned and adequately described. The close correlation between various medical diseases and the nurse's role in treatment are emphasized and concisely presented. There appears to be less chance of confusion between nurses' and physicians' responsibilities in the present edition than previously. More illustrations have been added, to a total of 80.

More serious deficiencies noted in the fifth edition persist in the present volume, however. As a standard textbook to be used in most American schools of nursing this book is too brief. Important and frequently encountered diseases such as primary atypical pneumonia and homologous serum jaundice are not even mentioned. Larger more comprehensive volumes are available and undoubtedly will be preferred.

Medical and drugs terms used are British and, although the word more familiar in this country is given frequently in parentheses, confusion can result.

As a textbook for review of nursing medicine or as a source of quick and concise reference on the medical wards this volume could be useful.

* * *

OBSTETRICS—11th Edition. J. P. Greenhill, M.D., Senior Attending Obstetrician and Gynecologist, The Michael Reese Hospital, Professor of Gynecology, Cook County Graduate School of Medicine. W. B. Saunders Company, Philadelphia, 1955. 1088 pages, 1170 illustrations on 910 figures, 144 in color, $14.00.

This volume is the 11th edition of the standard textbook on obstetrics originally written by J. B. DeLee, subsequently revised and rewritten under the editorship of J. P. Greenhill. The immediately preceding revision appeared in 1951, so that the present volume represents an up-to-date work embodying the commonly accepted principles of modern obstetric practice. Greenhill adopts a fairly middle-of-the-road approach to most obstetrical problems, and the recommendations and treatment are sufficiently conservative to permit the use of this book as a textbook and general handbook. Most of the viewpoints, expressed or implied, carry a strong personal flavor, but this is the author's style and cannot be termed objectionable. Some outmoded procedures, such as home delivery preparations and intrauterine bag usage, are given an inordinate amount of consideration, but modern concepts concerning retrolental fibroplasia and total cesarean hysterectomy are well documented. Discussion of toxemia could be improved. This book will continue to find usefulness as a text for medical students and those interested in general obstetrical practice.

* * *

PATHOLOGY. Peter A. Herbut, M.D., Professor of Pathology, Jefferson Medical College and Director of Clinical Laboratories, Jefferson Medical College Hospital. 1227 pages, 651 figures, 6 color plates, $16.00.

This is a new textbook of Pathology intended for undergraduate or postgraduate students of medicine. It is nicely illustrated, mostly by reproductions of photographs which are technically excellent. References at the end of each chapter cite only publications in the English language, but are representative and are clearly marked to indicate their content.

The book is intended as a general presentation unadorned by unnecessary details. As a result it is quite didactic, with emphasis upon enumeration of descriptive features of disease and relatively little discussion of pathogenesis or significance of pathological changes. When lists of causes or factors in disease are given there is frequently no attempt to evaluate their relative importance. Critical analysis of conflicting ideas is not attempted.

TRANSACTIONS OF THE AMERICAN COLLEGE OF CARDIOLOGY—Volume IV—1954. Editors, Simon Dack, M.D., and Bruno Kisch, M.D. Published by the American College of Cardiology, 140 West 57th Street, New York 19, N. Y., 1955. 319 pages, $5.00.

This volume presents the papers of the Third Annual Convention of the American College of Cardiology held in Chicago in May, 1954. Very little new material was presented but a number of interesting reviews and personal opinions were expressed. The importance of diet in various types of cardiac disease has been given a good deal of attention in various panels with particular emphasis on restriction of salt, calories, and fat.

Gofman has a number of contributions indicating his present position with respect to diet and lipoproteins. The paper by Dack and Robbin, in which they have reviewed the predisposing and causative factors of atherosclerosis, is particularly timely. The surgical aspects of cardiac disease are mentioned briefly, but the newer aspects of surgical treatment are underplayed.

The book will be of interest for those wishing to have discussions of selected items in the cardiological field.

* * *

THE KIDNEY—Ciba Foundation Symposium. Edited by A. A. G. Lewis, M.D., for the Renal Association, and G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., for the Ciba Foundation, Little, Brown and Company, Boston, 1954. 333 pages, $6.75.

This volume, like other symposia of the Ciba Foundation, embodies the verbatim proceedings of a conference of outstanding participants from several countries. General subjects included structural and functional relationships, tubular transport, regulation of acid-base balance, electrolyte excretion, and control of volume of body fluid. Each presentation of original research or review of present knowledge on the specific topic was followed by informal, penetrating discussion. This publication offers new material of interest to students of renal physiology in health and disease. The informed practitioner will find much fundamental information here, but not in predigested or "practical" form.

* * *

PSYCHOSURGERY AND THE SELF. Mary Frances Robinson, Ph.D., and Walter Freeman, M.D. Grune & Stratton, New York, 1954. 118 pages, $3.00.

Dr. Walter Freeman writes one short chapter summarizing the development and techniques of prefrontal lobotomy, transorbital lobotomy, topectomy and other psychosurgical procedures.

The remainder of the book is written by a psychologist, Mary Frances Robinson. This is a report on a research project in which the personality and psychological factors are studied in patients before and after psychosurgery. Details of the tests and testing methods are given together with various theories and conclusions. Nine pages of references in the field are given.

This is a book that will be of interest to psychologists and physicians working with these patients.

* * *

MEDICAL PROGRESS—1955—A Review of Medical Advances During 1954. Morris Fishbein, M.D., Editor. The Blakiston Division, McGraw-Hill Book Company, New York, 1955. 346 pages, $5.00.

This is the third volume in a series which began with 1953 Medical Progress. It is divided into 20 sections, all on different aspects of clinical medicine, each by a different author. Each author summarizes the work in his field during the year 1954 as he sees it. For the most part these summaries are essentially brief notices and reports which point the way for further reading. They cover much the same field as similar yearbook series.

LECTURES ON THE SCIENTIFIC BASIS OF MEDICINE—Volume III, 1953-54. British Postgraduate Medical Federation. University of London, The Athlone Press, 1955 —Published in New York, John de Graff, Inc., 64 West 23rd Street, New York 10.

In establishing this series of lectures, British medicine has really made a notable achievement. The high scientific quality of those who give the talks and the choice of important subjects are on the very best plane and must be of inestimable value to the general doctors who hear or read these talks. The present series, Volume Three for 1953-54, contains 21 lectures. The subjects vary from those which deal mainly with purely basic matters to those which are practical. Thus the first essay is entitled "Science and History" by H. E. Sigerist. Other fundamental subjects are "Reactions to Bacterial Invasion," "Antiviral Immunity," "The Genetics of Some Biochemical Abnormalities," etc. Of more immediate practical importance we have for example a lecture on "Antimalarial Drugs," one on the "Causes of Failure in Antibiotic Therapy" and one on "Stress and Thyroid Activity." The volume is handsomely gotten up and there are excellent bibliographies.

* * *

CEREBRAL VASCULAR DISEASES—Transactions of a Conference Held Under the Auspices of The American Heart Association, Princeton, New Jersey; January 24-26, 1954—Irving S. Wright, Chairman and E. Hugh Luckey, Editor. Grune and Stratton, New York, 1955. 167 pages, $5.50.

This short volume reports the contributions of a panel of experts to a conference on cerebral vascular disease. The presentation is that with which we are now familiar; the subject was broken up into 14 subheads, with an authority on each subject conducting the forum, and the contributions of the various members reported in stenographic style, slightly edited to be sure. This is of considerable interest if one is familiar with the contributors, but makes for confusion and difficult reading otherwise. Nonetheless, it is well worth surmounting this obstacle to acquire the knowledge contained in the report. Considering the importance of cerebral vascular disease, which is growing with an aging population, a better knowledge of present concepts of pathology and treatment is a great advantage to the practitioner. This book contains that knowledge, as presented by experts in the various fields, and is worthy of reading by every physician.

* * *

CLINICAL BIOCHEMISTRY—Fifth Edition—Abraham Cantarow, M.D., Professor of Biochemistry, Jefferson Medical College; and Max Trumper, Ph.D., Formerly Lecturer in Clinical Biochemistry and Basic Science Coordinator, Naval Medical School, National Naval Medical Center, Bethesda. W.B. Saunders Company, Philadelphia, 1955. 738 pages, $9.00.

With the ever-increasing influence of laboratory aids in the evaluation of problems in clinical medicine the physician is constantly seeking books to enable him to keep abreast of biochemistry and physiology. This book is an effort to bridge the gap for the clinician between the fundamentals of biochemistry and bedside medicine. It is good, but in the reviewer's opinion not so good as other similar works which have appeared within the past two years. The material covered is essentially the same in Bodansky's *Biochemistry of Disease* and Hoffman's *Biochemistry in Clinical Medicine,* but in this particular book the organization and approach is not so good, the development of the material is not so thorough or usable from the standpoint of the clinician, and some areas which have grown remarkably in recent years are not adequately elaborated upon. It is a good book but better ones have appeared in similar fields within the past year.

THE MANAGEMENT OF OBSTETRIC DIFFICULTIES—5th Edition. Paul Titus, M.D., Revised by J. Robert Willson, M.D., M.S., Professor of Obstetrics and Gynecology, Temple University School of Medicine. The C. V. Mosby Company, St. Louis, 1955. 737 pages, 348 illustrations, one color plate, $12.50.

A book which has survived four previous editions since 1937, and now appears in a somewhat new format under the guidance of a new author, possibly fills some sort of need in its field. Just what the need may be in this case is difficult to discern, because "The Management of Obstetric Difficulties" is not quite a complete obstetrical textbook, nor is it on the other hand merely a student manual or synopsis. For the most part it is now, in its new edition, a general dissertation on obstetric matters as they are presented in a sound and conservative manner to the students and resident staff in the Temple University Hospital. The title of the book always has been somewhat of a misnomer; certainly not all the subjects included in the table of contents can rightfully be considered difficulties, in the usual sense of that word.

The new edition in many respects is a great improvement over the previous one. The tedious pages of verbatim quotations from other writers have been eliminated, and virtually the entire text has been rephrased in a pleasant, easy-to-read style. In so doing, the editor has achieved the enviable feat of eliminating more than three hundred pages and nearly a hundred illustrations. The net result of this, of course, has been the production of a volume less costly than the previous edition—a rare event in this age of soaring publishing costs. Those who are familiar with the earlier editions will be pleased to see what a splendid job of face-lifting Willson has done. Those who are attracted for the first time by the catchy title, expecting to find here answers not readily located in standard textbooks, may be disappointed.

* * *

THE SPINE—A Radiological Text and Atlas—Bernard S. Epstein, M.D., Chief, Department of Radiology, The Long Island Jewish Hospital. Lea & Febiger, Philadelphia, 1955. 539 pages, 721 illustrations, $16.50.

In the practice of clinical radiology, one encounters perhaps more variation in the interpretation of roentgenograms of the spine than almost any other part of the body. The reasons for this are multiple. Anomalies of the spine are frequent and of unlimited variation. Simple degenerative processes in the spine (such as vertebral body osteophytes, thinning of discs and so forth) are usually asymptomatic but frequently have symptoms ascribed to their presence. The early changes of bone infection and bone metastasis, especially when limited to small structures such as the pedicle or the articular processes, are easily overlooked in the absence of adequate stereoscopic projections. It is believed by this reviewer that the present work should aid in reducing such needless errata.

The book is divided into ten chapters. The first three deal with the normal spine, malformations and metabolic disorders. The next three deal with inflammatory, neoplastic and traumatic changes. There is then a section on the intervertebral discs, one on diseases of the spinal cord, and one on diseases of the hematopoietic and reticuloendothelial systems. Finally, there is a chapter on aortic aneurysms.

The text is comprehensive, but one might request additional material on differential diagnosis of some of the lesions under consideration. It is an unfortunate but well established fact that the response of bone and cartilage to insult of any type (be it infectious, traumatic or neoplastic) is often grossly similar. The roentgenograms merely reflect the gross or macroscopic pathology present, and therefore distinctive features are often lacking when the roentgenograms alone are considered.

The section on discography will undoubtedly be amplified in subsequent editions, as will the paragraphs on contrast aortography and angiography. It would be desirable to have additional illustrations on the *early* manifestations of ankylosing or rheumatoid spondylitis. The current ones illustrate the advanced bamboo spine and are not of use to the radiologist seeking examples of the early manifestations of this important disease in young men. Incidentally, the author continues the misnomer of Marie-Strumpell for the spinal variant of this disease. In actual fact, of course, Marie-Strumpell disease is spondylitis rhizomelique, or rheumatoid spondylitis plus ankylosing rheumatoid arthritis of the shoulder and the hip joints.

The sections on degenerative diseases of the spine are, in general, in consonance with current medical beliefs.

The illustrations are mostly of good quality and are reproduced in negative form. There is an adequate bibliography and index.

* * *

ROENTGEN INTERPRETATION—Eighth Edition—George W. Holmes, M.D., Honorary Physician, Massachusetts General Hospital, Clinical Professor of Roentgenology Emeritus, Harvard Medical School; and Laurence L. Robbins, M.D., Associate Clinical Professor of Radiology, Harvard Medical School. Lea & Febiger, Philadelphia, 1955. 525 pages, 371 illustrations, $10.00.

Correct diagnosis is the cornerstone of modern clinical medicine. It requires accurate observation and rational deduction. It includes differential diagnosis and provides a basis for prognosis. This monograph, properly utilized by medical students and physicians, will aid in correct diagnosis.

As in the earlier editions, there are twelve chapters. The first deals with confusing shadows and artifacts, the second with anatomical variations and the third with fractures and dislocations. There are then chapters on diseases of bone, the skull, the spine, and the joints. There is an excellent chapter on disorders of the chest, followed by chapters on the abdomen, gastrointestinal tract and genitourinary tract. Finally there is a chapter on fluoroscopy. The sections on disorders of the heart, lungs and gastrointestinal tract have been rewritten since the last edition. The illustrations are now all in negative form for the first time; most are of good quality. The bibliography is adequate and the index good.

In the examination of patients, radiological consultation provides two advantages: Firstly, it provides fluoroscopic and radiographic examination of good quality, and secondly (and even more important), it provides unbiased, independent interpretation. This book may be used to supplement such consultation.

* * *

CHILDBIRTH—Theory and Practical Training—Marjorie F. Chappell, D.N. (London), S.R.N.E. & S. Livingston Ltd., London 1954. 128 pages, $2.50.

This is a small book intended as a guide for those who are engaged in organizing and training classes of pregnant women for childbirth. From the standpoint of information regarding the events of pregnancy and labor it is very incomplete. The principal theme relates to muscular activity during parturition. The author evidently accepts without question the thought that labor is largely a muscular event which can be aided or controlled by appropriate muscle training. Most of the book is taken up with the following considerations: Relaxation, pelvic-floor stretching, foot exercises, abdominal and costal breathing and back rubbing, panting breathing, pressure symptoms and postnatal exercises. Analgesia is discussed in terms of gas and air, trilene, and pethidine as administered under the supervision of midwives (in Great Britain). I do not believe that this is a book which has much value on the American scene.

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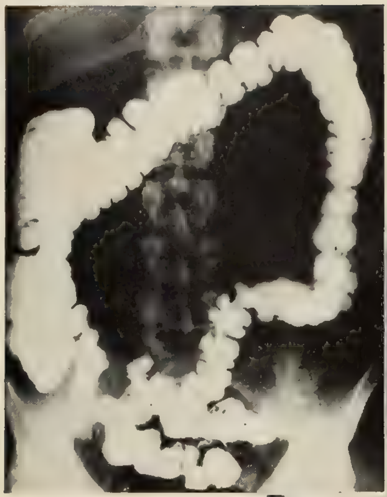

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Skin Diving Health Hazards Listed

A medical consultant for a west coast school for deep sea divers recently outlined some health hazards faced by more than 250,000 Americans who have taken up the sport.

"With the ever-increasing hordes of skin divers each year, diving accidents are becoming more commonplace," Dr. William T. Burns, Long Beach, Calif., said in a recent issue of the *Journal of the American Medical Association.*

In California from January 1953 through April 1955, there was an average of about one fatality a month. In addition, there were many nonfatal accidents. There is obviously a need for improved programs of diving safety, even though much progress has been made by various organizations, including the American Red Cross, Dr. Burns said.

Sport divers are of several types. The most common type, the one to which the term skin diver usually refers, wears a mask and relies on his ability to hold his breath under water. Others use a self-contained underwater diving apparatus, which consists of a face mask and a tank of compressed air or pure oxygen carried on the back. These units allow deeper and longer underwater ventures.

Dr. Burns, consultant for the Sparling School of Deep Sea Diving, Wilmington, Calif., said "perfect health is mandatory" for a skin diver. The ideal diver is young, slender, calm, and has good vision.

Obesity is a definite hazard, he said, for fat tends to retain nitrogen which can result in a disease commonly known as "the bends." Since obese individuals are usually out of condition, they are more prone to exhaustion, one of the most common hazards of diving.

Another hazard is nervousness, which prevents clear thinking in situations where cool-headed thinking would prevent an accident, the author said. "The buddy system" should be used at all times. Many times a diving buddy has been the one to assist an exhausted or frightened diver to the surface and safety.

Head colds are particularly detrimental in diving, Dr. Burns said. Underwater pressure may force the infection into the ears, lungs, or sinuses.

One hazard caused by changes in pressure as the diver rapidly returns to the surface is caisson disease or "the bends." This occurs when nitrogen dissolved in the body tissues evolves from the tissue faster than blood can carry it away. Bubbles form in the blood stream, blocking the flow of blood to various parts of the body.

Mild symptoms are skin itching and pains in the joints, tendons, or muscles. Serious symptoms are dizziness, vomiting, visual disturbances, and paralysis. They may occur from a few minutes to 15 hours after surfacing.

Treatment consists of immediate measures to

(Continued on Page 70)

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Skin Diving Health Hazards Listed

(Continued from Page 66)

combat shock, sedatives for the pain, and getting the patient into a recompression chamber as soon as possible, Dr. Burns said.

Caisson disease rarely occurs at depths of less than 40 feet. However, it may occur when a diver makes several dives during the day without allowing sufficient time between dives for the accumulated nitrogen to disperse.

Air embolism develops when a diver using an underwater breathing apparatus surfaces holding his breath. As he ascends, the compressed air in his lungs must expand. The expanding air may rupture blood vessels and allow air bubbles to flow into the heart, stopping circulation with sudden suffocation and death. Symptoms may occur in depths as shallow as seven feet.

The symptoms, which usually appear immediately after surfacing, are similar to those of a serious case of caisson disease. An additional symptom may be severe chest pain. Emergency treatment includes absolute rest with head down, artificial respiration, pure oxygen inhalation, general treatment for shock, and prompt recompression, Dr. Burns said.

Carbon monoxide poisoning may occur when a diver's air supply becomes contaminated with exhaust fumes from his gasoline-driven air compressor. Symptoms are severe headache, fatigue, dizziness, faintness, general uneasiness, and loss of consciousness. The skin, mucous membranes, and nail beds turn cherry red. Emergency treatment consists of prompt surfacing, removal of breathing apparatus, artificial respiration, oxygen administration, and the usual treatment for shock.

Carbon dioxide poisoning may occur when carbon dioxide builds up in the air being breathed from a "closed-circuit" breathing apparatus. Warning signs are panting, fatigue, headache, dizziness,

(Continued on Page 76)

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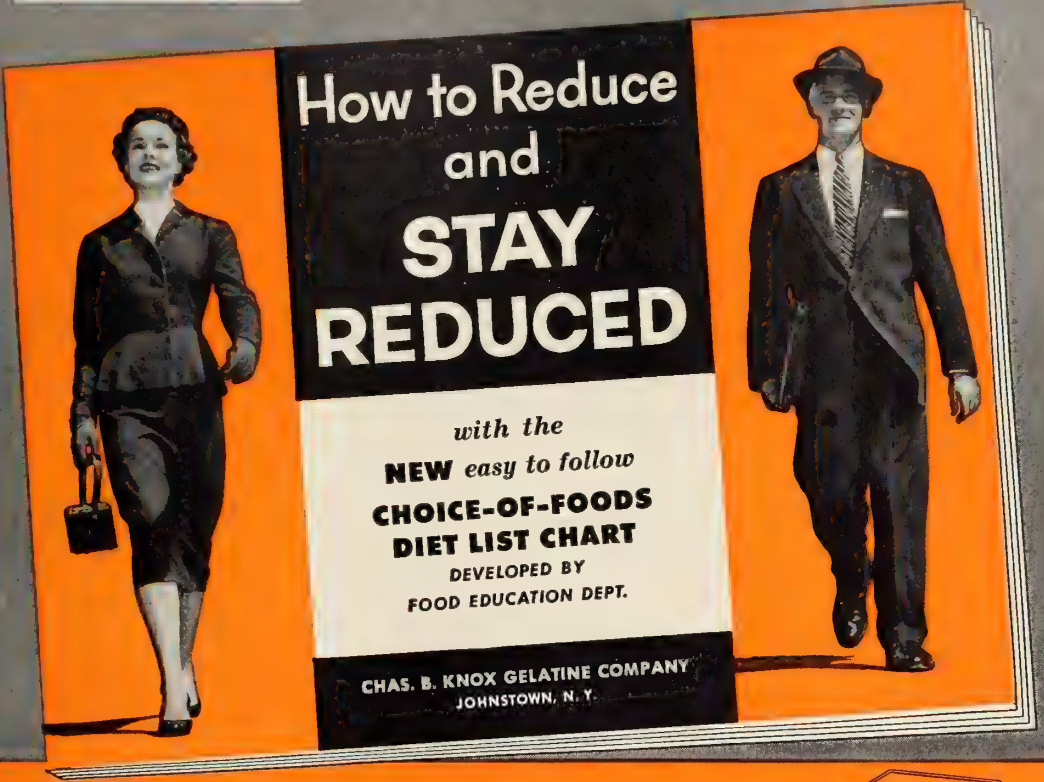
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Skin Diving Health Hazards Listed

(Continued from Page 70)

and nausea. Treatment includes prompt surfacing, artificial respiration, oxygen inhalation, and treatment for shock.

Some persons develop oxygen poisoning when they breathe 100 per cent pure oxygen under pressure. It can occur in depths as shallow as 33 feet. Symptoms are nausea, bronchial irritation, dizziness, emotional disturbances, muscle twitching, and convulsions. Surfacing usually clears the symptoms, although convulsions may continue for several hours.

Dr. Burns gave these rules for diving safety:

A diver should have perfect health and should follow a routine of clean living habits, adequate rest, and plain simple diet.

A diver should learn diving procedure from competent instructors; know how to swim; be at home in the water, and always dive with another person.

"A good diver is neither overfearful nor audacious, but careful, foresighted, and calm in the face of difficulties, including panic among others. Unstable individuals should be discouraged from participating in SCUBA diving," Dr. Burns said.

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Wider Knowledge of Chemical Health Hazards Needed

The Committee on Toxicology of the American Medical Association has embarked on a program to acquaint the public with some of the dangers of the many chemical products used in the home, on the farm, and in industry.

Understanding of the uses and potential dangers of the almost quarter million different brand name chemical products is needed to prevent the estimated 3,300 accidental poison deaths which result each year from misuse of chemicals.

The array is so large and so many combinations of chemicals are possible that no complete catalogue of all available products has been made, the committee said.

As part of its campaign, the committee will sponsor a symposium on health hazards of chemicals December 29 before the pharmacy section at the annual meeting of the American Association for the Advancement of Science at Atlanta, Ga.

Bernard Conley, secretary of the A.M.A. Committee on Pesticides — which is cosponsoring the discussion—will be moderator for the symposium. He said the purpose of the meeting is to interpret new knowledge of chemical products to scientists in various fields, so they in turn may use and spread the information.

On the symposium will be Lester M. Petrie, M.D., director, preventable diseases service of the Georgia Department of Public Health, Atlanta; Wayland J. Hayes, M.D., chief of the toxicology section of the Communicable Diseases Center, U.S. Public Health Service, Savannah; Irvin Kerlan, M.D., associate medical director of the federal Food and Drug Administration, Washington, and Mrs. Veronica Conley, assistant secretary of the A.M.A. Committee on Cosmetics, Chicago.

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More than 5,000 foreign physicians came to this country during the year 1954-55 for study, according to a survey by the Institute of International Education and the American Medical Association.

They came from 83 different countries for internship and residency training at hospitals in 42 states, the District of Columbia, Hawaii, Puerto Rico, and the Canal Zone.

The survey of 1,177 hospitals, among those approved for internships and residencies by the A.M.A. Council on Medical Education and Hospitals, indicated that there were at least 5,036 alien physicians in training. Not included in the study were immigrants and displaced persons.

Individual countries sending the most physicians were the Philippines, Canada, Mexico, Germany, and Turkey. Of the major geographical areas, the Middle, Near, and Far East had the largest representation.

Of the total, 620 or 12.3 per cent were women. In comparison, women made up only 5.2 to 5.7 per cent of American medical school graduating classes in the years 1952 through 1954. Over half of the women came from the Near, Far, and Middle East, with the Philippines sending the most.

More than 2,000 of the physicians were in the United States on their own resources. Others were sponsored by at least 67 different agencies, including their own or the United States government, the United Nations, and religious, educational or philanthropic organizations. Many were sponsored by the hospitals in which they were training.

In addition to the large number of physicians in hospital internship-residency training, others visited this country as observers, professors, or guest participants in research. They represented 21.5 per cent of all foreign educators who visited the country during the year.

In comparison, only 3.6 per cent of all American educators visiting other parts of the world in 1954-55 were listed under medicine.

The survey was reported in a recent issue of the *Journal of the American Medical Association* by Dr. James E. McCormack, associate dean of graduate studies at Columbia University College of Physicians and Surgeons, and Arthur Feraru, head of the Central Index and Census Division, Institute of International Education, both of New York.

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1. Forsham, P. H., et al.: Paper presented at First Internat. Conf. on Prednisone and Prednisolone, New York, N. Y., May 31-June 1, 1955.

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Easter Chicks Carry Stomach Infection

An unusual outbreak of a stomach and intestinal infection caught from Easter chicks is reported in a recent issue of the *Journal of the American Medical Association.*

The infection, caused by a bacterium, Salmonella typhimurium, is common in chicks and other poultry. It is being more frequently reported among humans, according to Arnold S. Anderson, M.D., Henry Bauer, Ph.D., and C. B. Nelson, M.D., Minneapolis. They said the reported outbreak indicates "a potential hazard" in distributing chicks or other small poultry as household pets.

Twelve cases of salmonellosis in 11 households in Hennepin County, Minn., were definitely traced to chicks which were distributed at Easter, 1954, by two food stores.

The chicks were obtained from a hatchery which had no record of infection. However, while at the stores, the chicks were crowded and were fed cereal from broken packages.

No attempt was made to question all persons who received the chicks, but 17 other persons in the 11 households showed symptoms and probably had cases of salmonellosis.

The illness began from four to six days after chicks were taken home. The symptoms, including fever, watery diarrhea, blood in the stools, and vomiting, came on suddenly and lasted from one to five days. Treatment consisted of the usual anti-diarrheal drugs and diet and antibiotics.

The 12 patients ranged in age from four months to 35 years. Six were infants under one year of age.

The infection is usually mild in children over

(Continued on Page 90)

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preliminary findings,[1] based on the measuring of pituitary ACTH suppression potency of various corticoids, appear to indicate that STERANE is 20% more potent than the cortisone analog, prednisone

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Easter Chicks Carry Stomach Infection

(Continued from Page 88)

the age of two and in adults, but so severe in infants less than a year old that medical help is necessary, the physicians said.

The authors explained how tiny infants, who live "in scrupulously clean cribs and seldom have anything go into their mouths that is not sterilized," get salmonellosis.

The answer is in the behavior of the two to five-year-old, who handles his pets and then touches the mouth of his baby brother or sister. "It may be mere chance, but we suspect it is not," that every patient under one year had a brother or sister between the ages of two and five, the authors said.

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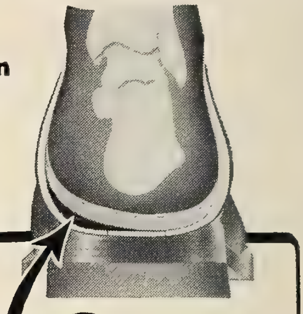

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Raps Side-Door Approaches to Socialized Medicine

Dr. Lafe Ludwig, Los Angeles, a member of the American Medical Association Legislative Committee found a big and receptive audience when he reached Reno recently to address the joint convention of the Nevada State Medical Association and the Reno Surgical Society. More than 400 physicians and their wives turned out to hear him outline some of the side-door approaches to socialized medicine during the first session of the 84th Congress.

Dr. Ludwig, who became a member of the Legislative Committee in 1951 and also has served several terms in the House of Delegates, spent more than an hour explaining the functions of "this important committee," and the various bills pertaining to medicine that have been introduced.

He appealed for a "grass roots" support of what he termed free professional enterprise.

—A.M.A. Secretary's Letter

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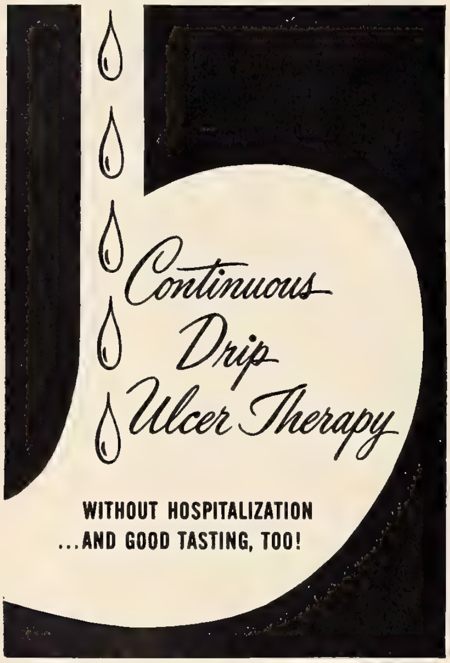

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*Steigmann, F., and Goldberg, E.: Ambulatory Continuous Drip Method in the Treatment of Peptic Ulcer, Am. J. Digest. Dis. *22*:67 (Mar.) 1955.

†Mg trisilicate 3.5 gr.; Ca carbonate 2.0 gr.; Mg oxide 2.0 gr.; Mg carbonate 0.5 gr.

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Cutter Free to Submit Salk Vaccine For PHS Clearance

The issuance recently of the Public Health Service's four-month study of poliomyelitis vaccine produced by Cutter Laboratories has cleared the way for the firm to submit newly produced vaccine for approval. Surgeon General Scheele said if the vaccine meets all revised production and safety testing standards, then vaccine will be released. PHS requested Cutter to halt distribution in April when the first cases of polio were reported among children who had received injections of vaccine made by Cutter. PHS in its report made these points:

1. While exact reasons for the presence of infective amounts of live virus in some lots of Cutter vaccine could not be found, study of the laboratories' data against the general experience of the industry during the same period "strengthens the probability that the cause of the trouble was inadequate inactivation coupled with failure of the safety tests to demonstrate the presence of virus."

2. Equipment, physical arrangements and routine handling at Cutter were checked in detail and "nothing was found to indicate that the infective amounts of live virus were attributable to contamination."

3. Prior to May 27 when PHS issued revised minimum safety standards for the vaccine, the inadequacy of inactivation was "not unusual," and there were "then fundamental weaknesses in the safety testing procedures which failed to assure what is now believed to be a satisfactory degree of sensitivity."

—A.M.A. Washington Letter

Survey Contradicts an Old Theory

Two Detroit physicians may have upset a 100-year-old theory in the diagnosis of one type of heart failure.

They said it has been an "accepted maxim" that in myocardial infarction, low cracking sounds are usually heard in the right side of the chest during breathing.

They found the opposite to be true in over half of 200 patients with myocardial infarction. Less than 10 per cent had the sounds on the right side, while others had the noises on both sides or not at all.

Drs. Jack M. Kaufman and Nancy T. Caputo of the department of cardiology, Harper Hospital, Detroit, said the reasons for the left-sided sounds are not completely understood. However, they said their discovery should be useful in diagnosing some cases of myocardial infarction, in which an area of heart muscle cells becomes deadened.

Their report appears in a recent issue of the *Journal of the American Medical Association.*

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(Continued from Page 68)

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BOOKS RECEIVED

ALLERGY COOKING—A Guide with Menus and Recipes. Marion L. Conrad. Thomas Y. Crowell Company, 432 Fourth Ave., New York 16, N. Y. 380 pages, $5.00.

ADVANCES IN INTERNAL MEDICINE—Vol. VII, 1955. Editors: William Dock, M.D., Long Island College of Medicine, Brooklyn, and I. Snapper, M.D., Beth-El Hospital. The Year Book Publishers, Inc., 200 E. Illinois St., Chicago, 1955. 311 pages, $8.50.

ASCLEPIADES—His Life and Writings—Translated by Robert Montraville Green, M.D., Emeritus Professor of Anatomy, Harvard Medical School. Elizabeth Licht, Publisher, 360 Fountain Street, New Haven, Conn., 1955. 167 pages, $6.00.

BODY FLUIDS, THE—Basic Physiology and Practical Therapeutics. J. Russell Elkington, M.D., Associate Professor of Medicine, University of Pennsylvania School of Medicine, and T. S. Danowski, M.D., Rensiehausen Professor of Research Medicine, University of Pittsburgh School of Medicine. The Williams and Wilkins Company, Baltimore, 1955. 626 pages, $10.00.

CLINICAL PATHOLOGIC CONFERENCES OF COOK COUNTY HOSPITAL — Vol. I — Cardiovascular - Renal Problems. Edited by Hans Popper, M.D., Ph.D., Director, Department of Pathology, Cook County Hospital, Associate Professor of Pathology, Northwestern University Medical School, and Daniel S. Kushner, M.D., Associate Director of Medical Education, Cook County Hospital; Clinical Assistant in Medicine and Fellow in Pathology, Northwestern University Medical School. The Blakiston Company, Inc., New York, 1954. 325 pages, $5.00.

COUNSELING IN MEDICAL GENETICS. Sheldon C. Reed, Director of Dight Institute for Human Genetics, The University of Minnesota. W. B. Saunders Company, Philadelphia, 1955. 268 pages, $4.00.

EXPERIMENTAL PSYCHOLOGY—A Series of Broadcast Talks on Recent Research. A. J. Watson, Harry Kay, J. A. Deutsch, B. A. Farrell, Michael Argyle, R. C. Oldfield. Edited by B. A. Farrell. Philosophical Library, 15 East 40th Street, New York, N. Y. 66 pages, $2.75.

FEELING NO PAIN—Bill O'Malley. Prentice-Hall, Inc., New York, 1955. $1.95.

HEMORRHAGIC DISORDERS, THE—A Clinical and Therapeutic Approach. Mario Stefanini, M.D., Associate Professor of Medicine, Tufts University School of Medicine, and William Dameshek, M.D., Professor of Medicine, Tufts University School of Medicine. Grune & Stratton, New York, 1955. 368 pages, $11.75.

INTRODUCTION TO OPERATING-ROOM TECHNIQUE. Edna Cornelia Berry, R.N., A.B., Head Nurse, Operating Rooms, University Hospitals of Cleveland; and Mary Louise Kohn, A.B., R.N., M.N., formerly Instructor in Operating-Room Technique, Frances Payne Bolton School of Nursing, Western Reserve University, Cleveland. The Blakiston Division, McGraw-Hill Book Company, Inc., New York, 1955. 154 looseleaf pages, $4.00.

J.A.M.A. CLINICAL ABSTRACTS OF DIAGNOSIS AND TREATMENT. Noah Fabricant, M.D., Editor. Published with the approval of the Board of Trustees, American Medical Association, 1955. Intercontinental Medical Book Corporation with Grune and Stratton, Inc., New York, 1955. 627 pages, $5.50.

(Continued on Page 126)

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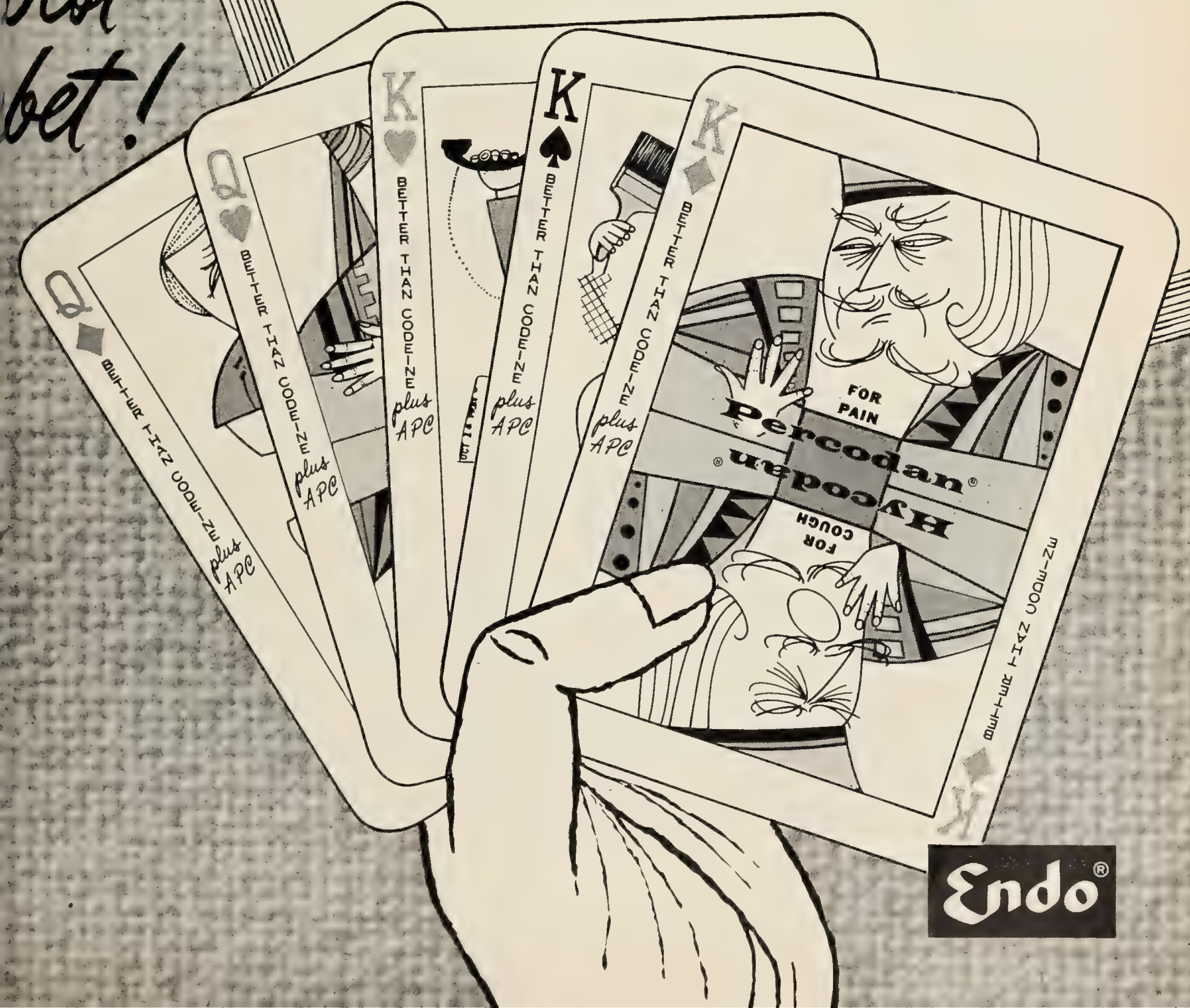
[1] Hyman, S., and Rosenblum, S. H.: Illinois M. J. 104:257, 1953.

[2] Piper, C. E., and Nicklas, F. W.: Indust. Med. 23:510, 1954.

†U. S. Pat. 2,628,185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PHS Releases Second Lot of Salk Vaccine For State Programs

United States Public Health Service announced August 9 the release of 1,177,000 cubic centimeters of the Salk poliomyelitis vaccine to states and territories, the second such action since the national voluntary allocation program went into effect August 1. The earlier release was for 846,000 cc's. The latest batch is from Wyeth Laboratories. In addition, PHS has authorized release of another 287,000 cc's produced by Pitman-Moore Co. which will be made available to the National Foundation for Infantile Paralysis in its program of immunizing first and second graders.

The 1,177,000 cc's will be distributed to the states through public agencies and to physicians through normal commercial drug channels. Each state's share is based on the number of unvaccinated children in the 5 through 9 age group. Each state, in turn, decides how much of its share to distribute through public agencies and how much through commercial channels.

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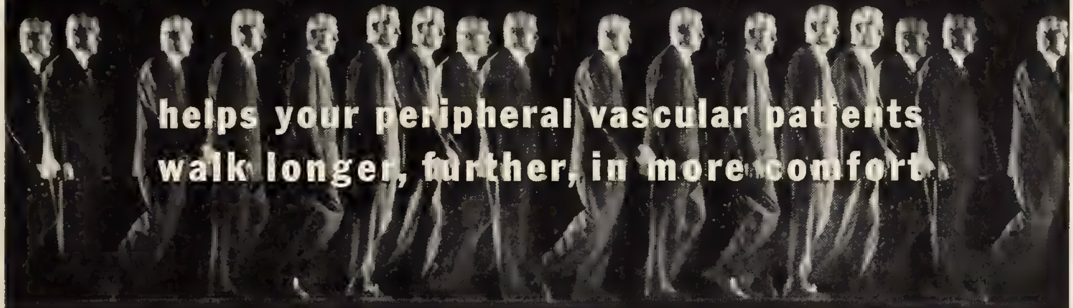

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1. Pomeranze, J. et al.: Angiology, June, 1955.
2. Freedman, L.: Angiology 6:52, Feb. 1955.

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Each tablet provides 6 mg. Nylidrin HCl (phenyl-l-butyl-norsuprifen HCl)

Doctor Draft Law

The doctor draft remains in effect another two years, until July 1, 1957. In the two major changes from the old act, the new law (1) lowers from 51 to 46 the age limit for callup of physicians, and (2) provides that any physician rejected for a medical commission for solely physical reasons shall no longer be liable on reaching age 35. The $100-a-month special pay for physicians in uniform is continued for four years.

Physicians already in uniform are not eligible for release even though they would not be subject to induction under the amended act. The law became effective June 30. The changes exempt two groups: (a) those who have reached their forty-sixth birthday, and (b) those who have reached their thirty-fifth birthday and at any time have been rejected for a medical commission solely on physical grounds.

—*A.M.A. Washington Letter*

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1. Devoe, R. W., & Footer, W., California Medicine, 80:300 (1954).
2. Gershenfeld, Louis, and Milanick, Vera E., "Bactericidal and Bacteriostatic Properties of Surface Tension Depressants," Am. J. Pharm., 113:306.

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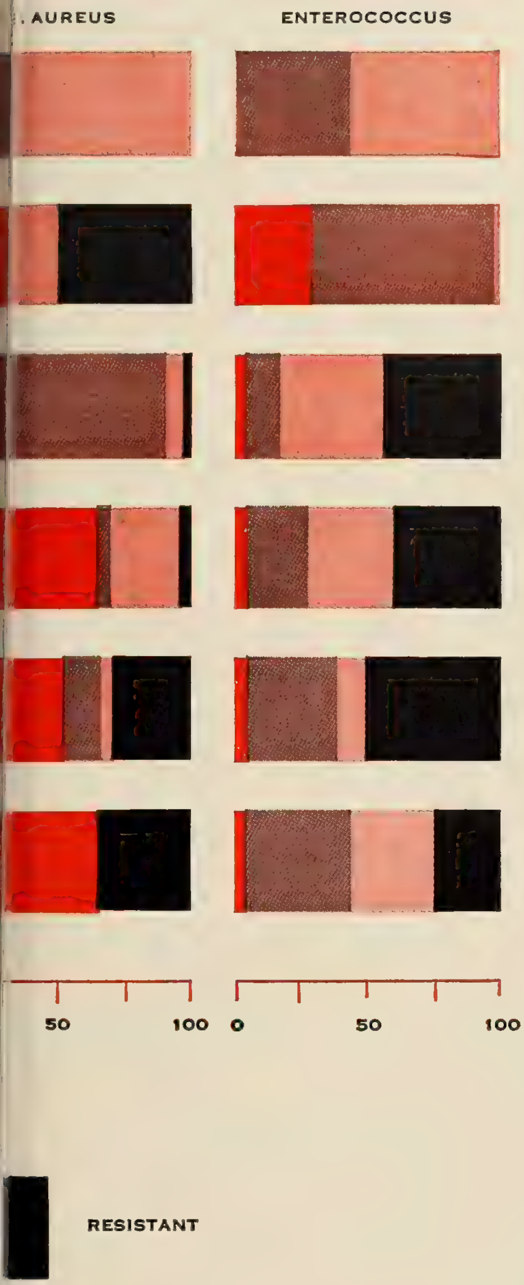

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References (1) Altemeier, W. A.; Culbertson, W. R.; Sherman, R.; Cole, W.; Elstun, W., & Fultz, C. T.: *J.A.M.A.* **157**:305, 1955. (2) Kutscher, A. H.; Seguin, L.; Lewis, S.; Piro, J. D.; Zegarelli, E. V.; Rankow, R., & Segall, R.: *Antibiotics & Chemother.* **4**:1023, 1954. (3) Clapper, W. E.; Wood, D. C., & Burdette, R. I.: *Antibiotics & Chemother.* **4**:978, 1954. (4) Sanford, J. P.; Favour, C. B.; Harrison, J. H., & Mao, F. H.: *New England J. Med.* **251**:810, 1954. (5) Balch, H. H.: *Mil. Surgeon* **115**:419, 1954. (6) Sanford, J. P.; Favour, C. B., & Mao, F. H.: *J. Lab. & Clin. Med.* **45**:540, 1955. (7) Felshin, G.: *J. Am. M. Women's A.* **10**:51, 1955. (8) Jones, C. P.; Carter, B.; Thomas, W. L., & Creadick, R. N.: *Obst. & Gynec.* **5**:365, 1955. (9) Kass, E. H.: *Am. J. Med.* **18**:764, 1955. (10) Stein, M. H., & Gechman, E.: *New England J. Med.* **252**:906, 1955. (11) Yow, E. M.: *Postgrad. Med.* **17**:413, 1955.

MEDICAMENTA VERA

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BOOKS RECEIVED

(Continued from Page 108)

OLD AGE IN THE MODERN WORLD—Report of the Third Congress of the International Association of Gerontology, London, 1954. E. & S. Livingstone Ltd., London, 1955. Distributed in U. S. A. by Williams and Wilkins Company, Baltimore, Maryland, 1955. 647 pages, $10.00.

PHYSICIAN AND THE LAW, THE. Rowland H. Long, Member Massachusetts and New York Bars, Lecturer in Forensic Medicine, New York University in Post-Graduate Medical School. Appleton-Century-Crofts, Inc., 35 W. 32nd Street, New York 1. 284 pages, $5.75.

POSTURAL COMPLEX, THE — Observations as to Cause, Diagnosis and Treatment. Laurence Jones, B.S., M.D., Chief Orthopedist, Menorah Hospital, 1932-1943, Kansas City, Mo., Visiting Orthopedist, Cedars of Lebanon Hospital, 1944-1953; Midway Hospital, 1948-1954, Los Angeles. Charles C. Thomas, Publisher, Springfield, Ill., 1955. 156 pages, $9.75.

PREMATURE INFANTS—A Manual for Physicians—Second Edition. Ethel C. Dunham, M.D., Formerly Associate Clinical Professor of Pediatrics, Yale University School of Medicine; Director, Division of Research in Child Development, U. S. Children's Bureau. Paul B. Hoeber, Inc., 49 East 33rd Street, New York 16, N. Y., 1955. 459 pages, $8.00.

PROGRESS IN NEUROLOGY AND PSYCHIATRY—An Annual Review—Volume X, 1955. Edited by E. A. Spiegel, M.D., Professor and Head of the Department of Experimental Neurology, Temple University School of Medicine, Philadelphia. Grune and Stratton, New York, 1955. 645 pages, $10.00.

QUANTITATIVE ANALYSIS OF DRUGS—Second Ed.—D. C. Garratt, B.Sc., Ph.D.(Lond.), F.R.I.C., Chief Analysts, Boots Pure Drug Co., Ltd., Philosophical Library, 1955. 670 pages, $17.50.

RESTRICTED SODIUM DIET, THE—Compiled under the Supervision of the Diets and Dietary Products Committee of the Los Angeles County Heart Association. Elizabeth Reisinger, Editor. Los Angeles County Heart Association, 316 South Bonnie Brae Street, Los Angeles 57, 1955. 64 pages. Available through any County Heart Association.

ROENTGEN INTERPRETATION—8th Edition. George W. Holmes, M.D., Honorary Physician, Massachusetts General Hospital, Clinical Professor of Roentgenology Emeritus, Harvard Medical School; and Laurence L. Robbins, M.D., Associate Clinical Professor of Radiology, Harvard Medical School. Lea & Febiger, Philadelphia, 1955. 525 pages, 371 illustrations, $10.00.

SALIVARY GLAND TUMORS—Donald E. Ross, M.D., F.A.C.S., F.I.C.S., F.R.C.S.(Eng.), F.R.C.S.,(Edin.), Diplomate, The American Board of Surgery, Chief Surgeon, Ross-Loos Medical Group, Los Angeles. Charles C. Thomas, Publisher, Springfield, Illinois, 1955. 86 pages, $7.50.

SHORT HISTORY OF MEDICINE, A—Erwin H. Ackerknecht, M.D. The Ronald Press Company, 15 East 26th Street, New York 10. 258 pages, $4.50.

SHOULD THE PATIENT KNOW THE TRUTH?—A Response of Physicians, Nurses, Clergymen and Lawyers. Edited by Samuel Standard, M.D., and Helmuth Nathan, M.D. Spinger Publishing Company, Inc., 44 East 23rd Street, New York 10, 1955. 160 pages, $3.00, hard cover, and $2.00, soft cover.

SYSTEMIC LUPUS ERYTHEMATOSUS—Review of the Literature and Clinical Analysis of 138 Cases. A. McGehee Harvey, M.D., Lawrence E. Shulman, M.D., Philip A. Tumulty, M.D., C. Lockard Conley, M.D., and Edyth H. Schoenrich, M.D., Department of Medicine, the Johns Hopkins University and Hospital. The Williams and Wilkins Company, Baltimore, 1955. 437 pages, $3.00.

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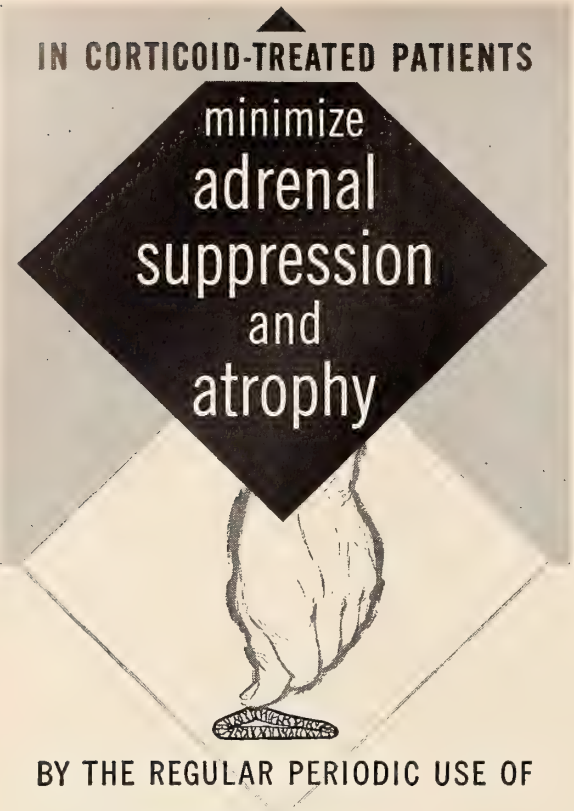

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Tuberculin Test Called Key to TB Problem

"The tuberculin test has become the master key to the tuberculosis problem," four Minnesota researchers said recently.

After a 28-year study of mass tuberculin testing of school children, they made two predictions: That if new antimicrobial drugs work, TB may be cured for the first time in history; and that mass testing may mean "tracking down and destroying the last tubercle bacilli."

The injection of a small amount of tuberculin reveals the presence of tuberculosis earlier than any other method, they said in a recent issue of the *Journal of the American Medical Association.* It does so with "uncanny accuracy," and before signs are evident through chest x-ray, they said.

They explained that infected persons become "reactors" to the tests within a few weeks after infection. In this early stage antimicrobial drugs may destroy the bacilli. Later, when the disease reaches the stage where x-ray shows its presence, the drugs may not destroy all bacilli. If nonreactors are tested periodically they can be caught and treated soon after the bacilli "invade" the body.

The best time to start routine tuberculin testing is in childhood, and a widespread movement now is under way to test school children everywhere. Eventually, they said, there will be "no alternative" but periodical testing of all nonreactors.

Persons who have reached the reactor stage and are "destined" to develop lung lesions should be examined periodically so lesions can be discovered as soon as they appear and are most treatable. The high percentage of cases not now discovered until they already have reached the advanced, soon-fatal stage could be found by tuberculin testing in early reactor stages, they said. From then on periodic examinations at least annually could catch 95 per cent of developing lesions while they still can be kept—by present treatment methods—from becoming contagious.

In addition to finding new cases of tuberculosis, the test provides a way of finding unknown contagious cases by checking persons who have been in contact with tuberculin reactors. Eventually "there must come a time" when attempts to trace the source of infection will reveal that most contagious cases already have been found and treated, they said.

The test also may show when adequate treatment has been given. There is reason to believe that when all tubercle bacilli are destroyed the individual will cease to react to the tuberculin injection, they said.

They studied children in 24 Minneapolis parochial schools, beginning in 1926 when almost half of the children were found to have been in contact with tuberculous people or animals or their products. By 1936 the rate had dropped to 18.9 per cent, and by 1944 to 7.7 per cent.

(Continued on page 22)

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Gonococci:	Diseases of the eye, urethra, joints
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Haemophilus influenzae:	Laryngotracheobronchitis, pneumonia
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Mental Deficiency Related To Birth Abnormalities

A recent study of more than 600 mentally defective children appeared to indicate that certain abnormalities of childbearing play a part in the development of mental deficiency.

The study of Dr. Benjamin Pasamanick, Columbus, Ohio, and Dr. Abraham M. Lilienfeld, Buffalo, N. Y., is reported in a recent issue of the *Journal of the American Medical Association.*

Records of 639 mentally defective children born in Baltimore from 1935 through 1952 showed "significantly more" complications of pregnancy and delivery, prematurity, and abnormal conditions of the newborn than among a similar number of children without mental defects," they said.

The nonmechanical abnormalities such as bleeding during pregnancy or blood infection, which may result in oxygen insufficiency for the unborn infant, appeared to be more important than mechanical factors such as difficult delivery.

The factors that appear to be associated with mental defect are similar to those previously found by the physicians to be associated with cerebral palsy, epilepsy, and childhood behavior disorders.

The physicians said there are several "reproductive casualties," consisting of brain damage incurred before, during, and immediately after birth, resulting from abnormalities during these periods. Mental retardation should be added to the group, which already includes spontaneous abortions, stillbirths, newborn deaths, cerebral palsy, epilepsy, and behavior disorders.

The authors said that these disorders no longer can be thought of as separate and distinct diseases, but rather must be thought of as types of chronic cerebral injury.

Their findings focus attention on the need for further research in the cause, diagnosis, care, and prevention of these neuropsychiatric disorders, the physicians said.

The survey was aided by a grant from the Foundation for Mentally Retarded and Handicapped Children of Baltimore.

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Average dose: 5 to 12 tablets daily, in divided doses, at times when vomiting is less likely to occur; or 1 cc. parenteral solution 2 or 3 times weekly.

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**Le Van, P., Sternberg, T. H., and Newcomer, V. D., Cal. Med., 81: 210-213, Sept. 1954.*

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Tuberculin Test Called Key to TB Problem

(Continued from page 14)

In 1954 only 3.9 per cent of almost the entire school population reacted. School personnel, of a less protected generation, showed a 46.8 per cent reaction.

Throughout the 28 years an intensive control program was carried out, including the use of mobile chest x-ray units; addition of hospital beds for contagious cases, and tuberculin testing by private physicians. Veterinarians attacked the problem and by 1953 only one of every 5,000 tested cattle reacted.

The 1954 program followed the school certification plan of the Committee on Tuberculosis of the American School Health Association. To be certified a school must have 95 to 100 per cent of the children and all the school personnel tested. In addition, both reactors and nonreactors must be retested periodically, with all reactors being given x-ray and other examinations. At present there are more than 2,000 Minnesota schools certified under the plan.

Making the report were Drs. J. Arthur Myers and Frederick G. Gunlaugson, Minneapolis; Dr. Edward A. Meyerding, St. Paul, and Miss Jean Roberts, M.S., Minneapolis, who were aided by a grant from the H. Longstreet Taylor Foundation, established by the Minnesota Tuberculosis and Health Association.

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FDA Revises Regulations Covering Release of New Drugs

Revised regulations issued by Food and Drug Administration regarding the release of new drugs more clearly define the responsibility of both manufacturers and FDA. The regulations, developing out of recommendations of a citizens advisory committee, became effective early in October, 1955.

One change is of particular interest to physicians who participate in clinical evaluation of new drugs during the investigation stage. In the future FDA will have authority to require the manufacturers to supply all information on shipments of investigational drugs to physicians, and to require the physician to sign a statement describing the nature and results of his experimental work with the new drug. A spokesman said FDA wanted the additional authority to be able to cope with a few situations and that the change was not a reflection on the drug industry as a whole or the physicians who regularly carry on clinical work for manufacturers. Other changes include: (1) Drug houses will be permitted to file an "incomplete application" over the protest of FDA's New Drug Branch, to be followed promptly by a hearing and court action if the producer so desires. (2) FDA is required to notify applicants by letter of any deficiencies found in preliminary review of the application, thereby avoiding long delays in making changes in the product or its processing. (3) The manufacturer in the future will be required to show on his application any information (derogatory) developed in the test for the safety of the drug.

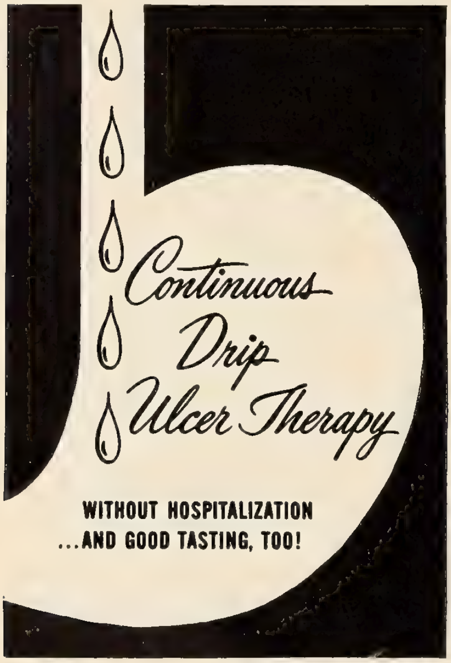
A.M.A. Washington Letter

Revenue Bureau Summarizes Medical Expenses Under Tax Law

Deductible and nondeductible medical expenses for income tax purposes have been summarized by the Bureau of Internal Revenue in a series of rulings that combine new interpretations with a clarification of old rulings. Some examples:

Travel expenses to and from a location where daily visits to a medical clinic are required are deductible but (since 1954) cost of food and lodging are not, except as part of a hospital bill. On education and training, special instruction in speech and lip reading for a deaf child are deductible expenses, but not a course of ordinary instruction. Psychiatric care and therapy at specially equipped treatment schools for alleviating mental illness are deductible items, but where cost of instruction at a psychiatric school doesn't represent medical care, it is not deductible. On health and

(Continued on page 36)



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*Steigmann, F., and Goldberg, E.: Ambulatory Continuous Drip Method in the Treatment of Peptic Ulcer, Am. J. Digest. Dis. *22*:67 (Mar.) 1955.

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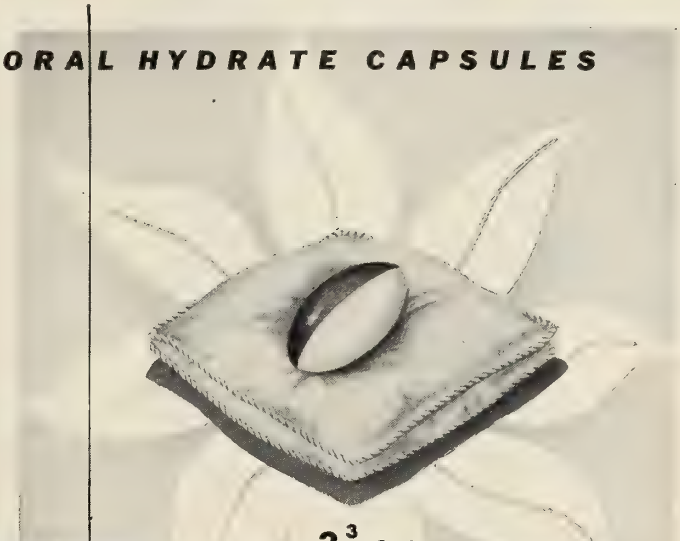

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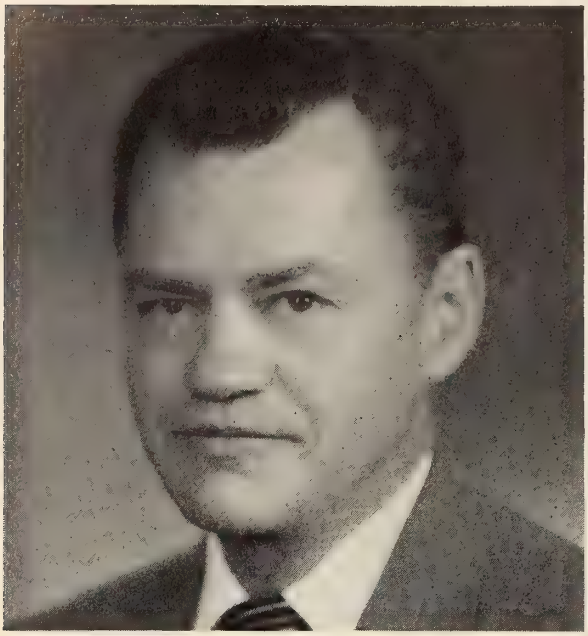


THOMAS A. FISKE

V. I. P. Thomas Fiske, known to all except his elderly distaff-side relatives as "Tom," is an Irishman by blood, an American by birth and a Southern Californian by choice. In fact, he got to California the hard way, from a standing start at the Canadian border of North Dakota, where he was born, to San Diego, almost at the Mexican border, via Wisconsin and Minnesota! Fortunately he has since learned to go at things more directly and has thus become a Boyle & Company V. I. P.

Tom, his wife Shyrley and their two daughters, Patricia and Susan, now live in the College Heights district where they are buying their own home; and where they all indulge the family taste for music, swimming and golf.

A member of Kappa Psi, Tom was educated at North Dakota State College, where he majored in pharmacy. He has been closely associated with pharmaceuticals most of his adult life, having worked in drug stores for many years, rising to the position of superintendent and buyer for a large drug chain. After spending three years in the army, he joined Boyle & Company. His experience, ranging from the compounding of prescriptions to the buying of bulk pharmaceuticals, has helped him to be of real service to the medical profession in San Diego and Imperial counties.

Tom knows prescription problems from the standpoint of physicians' preferences and so is able to give you exactly the information you want about Boyle & Company products. He also knows that from you he may get criticisms or suggestions of real value to the Company.

Like all our V. I. P.'s, Tom says he likes to work for Boyle & Company because it is an ethical house, continuously striving to improve its products. So when Tom, or the Boyle & Company representative in your area calls upon you, do not hesitate to comment upon the Boyle & Company products shown on the following pages. He knows that his company will welcome your comments and suggestions.

BOYLE

Graduate Medical Education Shows Big Gains

Training programs for newly graduated doctors have become as big—in terms of enrollment and time spent—as basic medical school education.

It is believed that this situation is unique among the professions, according to the Council on Medical Education and Hospitals of the American Medical Association.

Enrollment of young physician graduates as interns and residents for the 1954-55 year passed that of students in undergraduate medical schools, the council said, noting that this is an indication of "the magnitude of the growth of graduate training over the past 10 years."

The council's annual report on internships and residencies showed 9,066 graduates serving internships for 1954-55 and 20,494 serving as residents, a total of 29,560 in 1,364 hospitals. This is an increase of about 2,500 over last year, according to the report in a recent issue of the *Journal of the American Medical Association.*

Internships offered show for 1954-55 a 250 per cent increase over the number reported in 1914, the first year approved hospitals were listed by the council.

This year's internship and residency figures reverse the trend of the past several years, when unfilled positions were increasing. The report showed foreign medical school graduates in 1954-55 filling almost half of the vacancies not taken by American graduates, thus alleviating partly the demand for hospital staff appointees.

Another important change reported by the council was in requirements for residency training, which follows internship as the next step after medical school graduation.

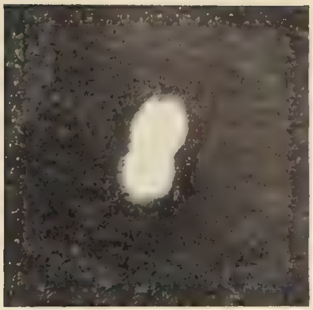
Previously some programs offered specialist certification training which almost could be compared to allowing a medical student to receive his M.D. degree after "completing four successive years at the freshman level at four different medical schools." The new policy eliminates the possibility of taking specialty training in several separate programs and instead requires stricter continuity in an integrated training course.

The council's report noted that the average cash stipend paid to interns by hospitals affiliated with medical schools is $87 a month compared to $84 last year. Hospitals not affiliated with schools pay $136 a month on the average, an increase of $1 over last year.

Federal hospitals, such as armed services or VA institutions, and local governmental hospitals offer 36.5 per cent of all available intern positions and have the highest rate of filled positions. Their rates range from 100 per cent for the Public Health Service, 99 per cent for Army hospitals, and 97 per cent for Navy. County and city-county hospitals have rates of between 93 and 96 per cent.

The organisms commonly involved in

Bronchopneumonia


D. pneumoniae (10,000 X)

K. pneumoniae (13,000 X)

H. pertussis (7,500 X)

Staph. aureus (9,000 X)

Str. pyogenes (8,500 X)

H. influenzae (16,000 X)

Upjohn

ELECTRON
MICROGRAPHS

All **of them are included in the more than 30 organisms susceptible to broad-spectrum**

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100 mg./cc. drops • 100 mg./2 cc. injection, intramuscular
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*TRADEMARK, REG. U.S. PAT. OFF.—THE UPJOHN BRAND OF TETRACYCLINE

Department of Public Health Discontinues Drugs for V.D. Treatment

On July 1, 1955, the State Department of Public Health discontinued entirely its distribution of drugs for the treatment of venereal disease. For many years it has been the policy of the State Health Department to provide drugs at no cost for the treatment of indigent and medically indigent venereal disease patients in health department clinics and the offices of private physicians. The distribution of drugs in this manner began in the prepenicillin days when the treatment of both syphilis and gonorrhea was of long duration, tedious and expensive.

In 1951 the department discontinued providing drugs for use in health department venereal disease clinics, because at this time state monetary grants were initiated in support of local public health programs under the terms of the Local Health Assistance Act. However, the department has continued to supply drugs in relatively small quantities, to local health departments for distribution to private physicians for the treatment in their offices of medically indigent venereal disease patients.

Requests for this service have been few in recent years, and penicillin has become relatively inexpensive, so it was thought that local health departments who wish to continue to provide this service to private physicians can do so out of locally procured drug stocks. Therefore, after consultation with the California Conference of Local Health Officers and the California Medical Association the State Department of Public Health decided to discontinue the distribution of any drugs for the treatment of venereal disease.

—*California's Health,* Vol. 13, No. 6, Sept. 15, 1955.

If You Plan to Move

In order to avoid interruption of service, members who plan to move should give us at least *four* weeks' advance notice. Such notification should specify both the old and new addresses, and the *name.*

Send change of address to:

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Severe infections quickly yield to...

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TRIPLE SULFONAMIDE SUSPENSION

MAJOR ADVANTAGES: Complementary effect of three soluble, well-tolerated sulfonamides. More effective blood levels. Sensitization and renal complications are rare. Palatable fruit-flavor.

Supplied: Each 5 cc. (1 tsp.) contains 100 *mg.* sulfamerazine and *200 mg.* each sulfadiazine and sulfamethazine.

SHARP & DOHME

Philadelphia 1, Pa.
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MERCK & CO., INC.

suppress
G-I Spasm
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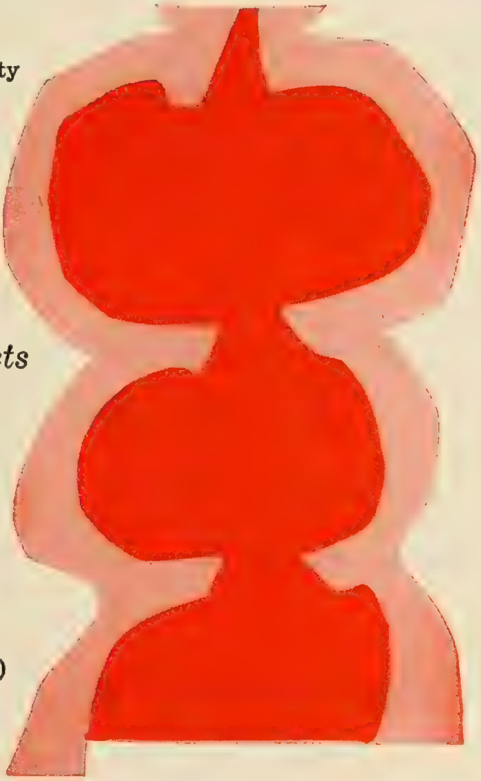

Trasentine® - Phenobarbital

- Inhibits Parasympathetic Activity
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- Sedates the Patient

Without Atropine Side Effects

Each tablet contains 50 mg.
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phenobarbital.
Also available: Trasentine
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Trasentine® hydrochloride
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CIBA *Summit, N. J.*

MEDICAL HORIZONS TV Monday P.M. *Sponsored by* CIBA ABC-TV

Revenue Bureau Summarizes Medical Expenses Under Tax Law

(Continued from page 24)

accident indemnity insurance, if a policy covers both injury indemnity and medical expense reimbursement, premium cost for latter is deductible but not for former. On other points, ordinary exercise rubdown, air conditioner, oxygen equipment, iron lung, special bed board, all are deductible items when prescribed by a physician for an illness, but not food for ulcer patient, maternity clothing, diaper service, wigs or toothpaste."

A.M.A. Washington Letter

New Tests Support Coffee Advertising Claims

New tests of decaffeinated coffees by the American Medical Association's chemical laboratory support various advertising claims that 97 per cent or more of the caffeine can be removed from these coffees.

A report in a recent issue of the *Journal of the American Medical Association* said the average cup of decaffeinated coffee—either regular or instant—has only about one-fortieth of the amount of caffeine present in regular ground or instant coffee.

(Continued on page 42)

HOSPITAL SPECIAL SIZE
FOR BURNS, SCALDS, SUNBURN, and minor skin irritations
ANTISEPTIC-EASY SPREADING
ANTI-PYREXOL
DISPENSED THRU PROFESSIONAL CHANNELS

Anti-Pyrexol

Active ingredients: Oils of spearmint, bay, wintergreen (syn.), salicylic acid, lanolin, zinc oxide, phenol (0.44%) ortho - hydroxyphenylmercuric chloride (.56%)—petrolatum, paraffin. Physicians in increasing numbers are using Anti-Pyrexol in the treatment of denuded and painful skin lesions—for burns, scalds, incised or lacerated wounds, surface irritations and local inflamed conditions of the skin and mucous membrane. An antiseptic ointment that combats toxemia. Anti-Pyrexol reduces pain, promotes healing, minimizes scarring. In 2 oz. tubes, and 1, 5, 10 and 50-lb. tins at your surgical supply house or jobber. Imitated—so ask for **easy spreading** Anti-Pyrexol.

ANTI-PYREXOL BLAND. Same as Anti-Pyrexol except that orthohydroxyphenylmercuric chloride is omitted—suggested in treatment where chances of infection are lacking. Packed as Anti-Pyrexol.

ANTI-PYREXOL BENZOCAINE. Represents Anti-Pyrexol plus Benzocaine 3%. Acutely anesthetic. Packed in 2-oz. tubes and in 1, 5 and 10-lb. tins. *NOT ADVERTISED TO THE LAITY*

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They assure the highest standards of COMFORT, CLEANLINESS, and SAFETY for your patients.

Unnoticeable even under girdle or corset. 24-hour control. Odorless. Moisture-proof plastic pouch is inexpensive, disposable.
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Telephone 35-6317

Significant advantages of CARNATION INSTANT WHEAT *in the Basic Cereal Breakfast*

Carnation Instant Wheat provides all the natural whole wheat values including B-vitamins, protein, phosphorus and iron—in natural, unharmed form. The low-heat processing in no way "denatures" the protein, sometimes adversely affected by the high-heat processing of most types of ready-to-eat cereals.

*The University of Iowa Breakfast Studies** clearly demonstrated the importance of a good breakfast in maintaining *mental acuity* as well as physical work output; and the equal efficiency for such maintenance of the basic cereal breakfast and the basic bacon and egg breakfast supplying the same amount of calories.

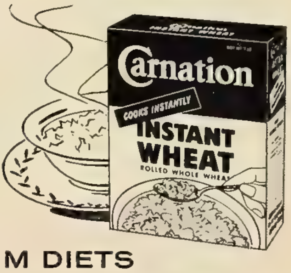
In encouraging better breakfasts, the physician may well include the basic cereal breakfast for variety and economy. In such breakfasts, Carnation Instant Wheat provides definite advantages compared to ready-to-eat cereals or a "toast and coffee" breakfast.

ALL THE WHOLE GRAIN VALUES

Per weight measure compared to enriched flour, Carnation Instant Wheat makes a significantly greater contribution in protein, phosphorus, iron, thiamin, nicotinic and pantothenic acid and pyroxidine. Therefore, additional enriched toast is not a nutritionally equal substitute for Carnation Instant Wheat in the basic cereal breakfast.

DELICIOUS, EASY TO PREPARE

Carnation Instant Wheat is rolled extra-thin and partially pre-cooked—cooks in "no time." It brings out the delicious nut-like flavor of natural whole wheat.



FOR LOW SODIUM DIETS

An average serving (1 oz. dry) contains not more than 1.4 mg. sodium. Thus Carnation Instant Wheat is suitable for low sodium diets and is frequently preferred over ready-to-eat cereals, which generally contain added salt.

IOWA BREAKFAST STUDY BASIC CEREAL BREAKFAST

ITEM	WEIGHT OF SERVING gm.	PROTEIN gm.	ENERGY calories
Fruit	77	0.4	68
Cereal (dry wt.)	30	3.2	110
Enriched White Bread (toasted)	50	4.2	130
Sugar	10	0.7	40
Butter	10	0.1	73
Whole Milk	480	16.9	330

Calories . . . . 750 Fat (gm.) 28
Protein (gm.) . . . . . 25 Carbohydrate 100

*Literature available upon request.
Address Nutritional Research Dept.,
Albers Milling Co., A Division of Carnation Co.
5045 Wilshire Blvd., Los Angeles 36, Calif.

Editor Issues Challenge to Restaurateurs

The editor of *Today's Health*, published by the American Medical Association, recently issued a challenge to restaurant owners to remember "the forgotten man."

Dr. W. W. Bauer's forgotten men are not those who are ignored by the waiter but those who eat many meals away from home but must stick to carefully selected diets with restrictions on salt, meat, sweets, fats, or starchy foods.

"Not only is the plight of the restaurants' forgotten people a matter of grave concern to them and their health, it is also a factor in successful restaurant management," Dr. Bauer said.

He said the restaurateur can satisfy the growing number of diet-restricted customers and still make a good profit. In many cases a "mere change in menu" will help these people.

He suggested the addition of fresh or sugarless canned fruit and skim milk to the menu for diabetics and those watching their weight. A note might be added to the menu saying that artificial sweeteners and nonsodium "salt" will be supplied on request.

Persons with gout must avoid meats; therefore, fish, poultry, eggs, cheeses, and pancakes or waffles "make them happy," Dr. Bauer said.

Customers who must watch their salt intake have a harder time than almost any other group and will give more trouble, Dr. Bauer said. "With the progressive aging of the population, and the increase in heart and kidney diseases, it is a sound business prediction that these customers will grow more numerous."

The low-salt diet requires extra stocks of low-salt bread and unsalted butter or margarine. It means special cooking without salt or with a salt substitute. "It means extra expense, and this must be reflected in menu prices. But it can also mean an expanding clientele of persons willing and able —no, more, happy—to pay the differential in price . . ." he said.

Dr. Bauer suggested a special dietary department in a restaurant rather than a special restaurant, because most persons want a restaurant convenient to where they happen to be at the time. "A special restaurant, known as such, limits its clientele. The normal diner avoids it; even the one who needs its special attentions may be reluctant to let the world know that he has to eat in a restaurant catering to the abnormal," he said.

An individual owner would not need a dietitian to institute such a department, if the industry as a whole got behind the plan and supplied its members with basic information, shopping and planning helps, menus, recipes, and promotion material. Cooks' and bakers' schools, local medical societies, and nutritional consultants could help start such programs.

1950 Cortone® | 1952 Hydrocortone®
1954 'Alflorone' | 1955 Deltra

'Hydeltra' tablets
(PREDNISOLONE, MERCK) 5 mg.—2.5 mg.—1 mg. (scored)

the delta-1 analogue of hydrocortisone

Indications: *Rheumatoid arthritis*
Bronchial asthma
Inflammatory skin conditions

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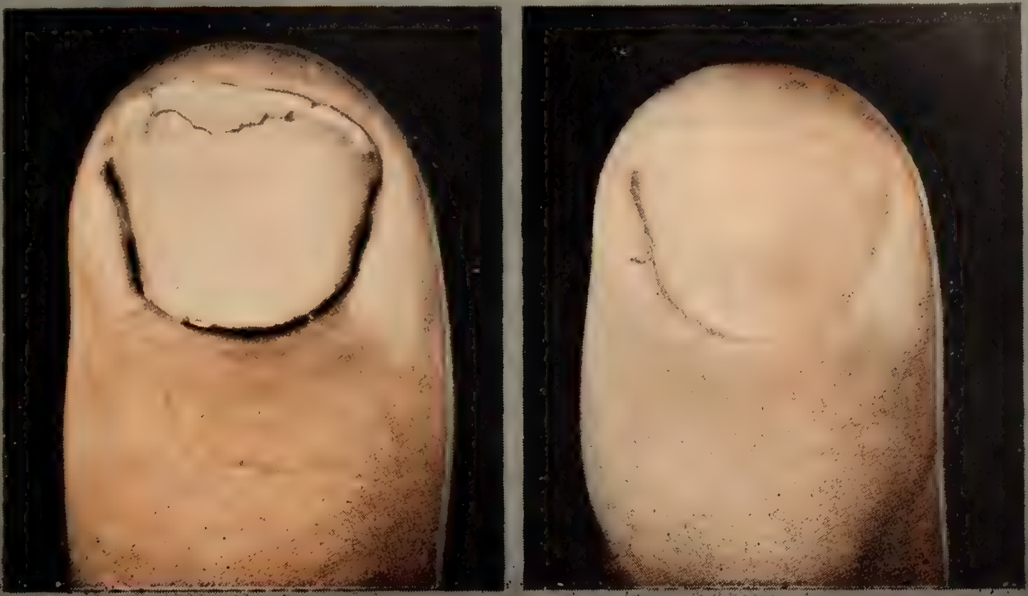
DIVISION OF MERCK & CO., INC.

KNOX Protein Previews



New Study Shows Gelatine Restores Brittle Fingernails to Normal

Directions for making the Knox Gelatine drink in every package

KNOX
UNFLAVORED
GELATINE

Brittle, fragile or laminating fingernails are the bane of many a woman's existence. Yet this highly prevalent and distressing condition often has gone uncontrolled for lack of effective therapy. Now, you can promise these patients substantial relief in a large percentage of cases.

In a recent study[1] that confirmed previous work[2] Knox Gelatine was used to treat 36 women with fragile, brittle, laminating fingernails. The response was most gratifying. Except for three patients who discontinued the therapy, three diabetics, and two women who had congenital deformities, the splitting ceased and all other patients were able to manicure their nails to a full point by the time the study ended.

Optimal dosage proved to be one envelope (7 grams) of Knox Gelatine administered daily for three months. Improvement, however, was noted after the first month. If you would like more complete details of this work, just use the coupon.

---

[1] Rosenberg, S. and Oster, K. A., "Gelatine in the Treatment of Brittle Nails," *Conn. State Med. J.* **19**:171-179, March 1955.
[2] Tyson, T. L., *J. Invest. Dermat.* **14**:323, May 1950.

Chas. B. Knox Gelatine Company, Inc.
Professional Service Dept. CB-11
Johnstown, N. Y.

Please send me a reprint of the article by Rosenberg and Oster with illustrated color brochure.

YOUR NAME AND ADDRESS

New Tests Support Coffee Advertising Claims

(Continued from page 36)

An earlier laboratory report in the *Journal* of July 23, 1955, said the caffeine content of both decaffeinated coffees ranges from one-third to one-eighth of the content in regular ground coffee. In addition, it warned that advertisements implying almost total removal of caffeine "must be viewed with skepticism."

In reference to the first report, the laboratory said, "the data now presented indicate that inaccurate results were reported in the original article of July 23 in regard to the caffeine content of instant and decaffeinated coffees."

It was found that the original testing method "leads to erroneous values for caffeine in decaffeinated coffees." The new procedure gives results that "more accurately represent the actual caffeine contents of coffees."

The laboratory also found in retesting regular instant coffees that they have about the same amount of caffeine as regular ground coffees. The original tests had indicated that a cup of regular instant coffee has only about half as much caffeine as regular ground coffee.

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SAN JOSE, CALIFORNIA
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Anti-asthmatic **Quadrinal tablets**

QUADRINAL TABLETS CONTAIN FOUR DRUGS, EACH SELECTED FOR ITS PARTICULAR EFFECT IN CHRONIC ASTHMA AND RELATED ALLERGIC RESPIRATORY CONDITIONS.

℞ ½ or 1 Quadrinal Tablet every 3 or 4 hours, not more than three tablets a day.

Each Quadrinal Tablet contains ephedrine hydrochloride ⅜ gr. (24 mg.), phenobarbital ⅜ gr. (24 mg.), Phyllicin (theophylline-calcium salicylate) 2 gr. (120 mg.), and potassium iodide 5 gr. (0.3 Gm.)

Quadrinal Tablets are marketed in bottles of 100, 500 and 1000.

Quadrinal, Phyllicin. Trademarks E. Bilhuber, Inc.

distributor: BILHUBER-KNOLL CORP., *Orange, New Jersey, U. S. A.*

Latest data on effectiveness of Furadantin®

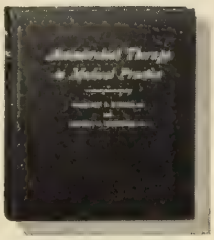
brand of nitrofurantoin, Eaton

in urinary tract infections

Investigators:

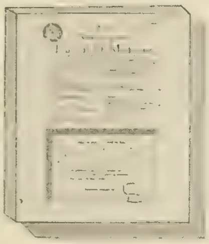
Latest data on effectiveness of Furadantin

Flippin, H. F., and Eisenberg, G.M.: Antimicrobial Therapy in Medical Practice, Philadelphia, F. A. Davis Co., 1955, p. 40.



Clinical studies have demonstrated rapid clinical response in cases of cystitis and pyelonephritis, including infections caused by refractory organisms.

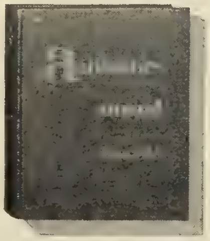
Trafton, H. M., et al.: New England J. Med. **252:** 383, 1955.



13 acute cases . . . 6 appeared cured . . . 6 markedly improved with no relapses.

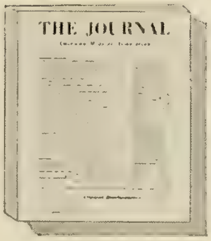
36 chronic infections: 30 showed symptomatic improvement, frequently within 24 hours.

Beutner, E. H., et al.: Antibiotics Annual, 1954-1955, New York, Medical Encyclopedia, Inc., 1955, p. 988.



30 chronic urinary tract infections: Of 47 strains of bacteria isolated from these patients, 29 strains (62%) were eradicated by Furadantin.

Hasen, H. B., and Moore, T. D.: J.A.M.A. **155:** 1470, 1954.



Of patients with acute urinary tract infections, 95.7% were benefited. Patients with chronic infections and those with organic or obstructive lesions were benefited in 82% of cases.

Dosage — average adult: four 100 mg. tablets daily, 1 tablet with each meal and 1 tablet on retiring, with food or milk.

Furadantin tablets, 50 and 100 mg. in bottles of 25 and 100. Furadantin Oral Suspension (5 mg. per cc.), bottle of 4 fl.oz. (118 cc.).

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THE NITROFURANS—A UNIQUE CLASS OF ANTIMICROBIALS O_2N R PRODUCTS OF EATON RESEARCH

Multiple Births in California; 1953 Data Analyzed

Out of a total of 296,944 live births occurring in 1953 to California residents, 6,142 were members of twin sets, and 88 were members of triple sets.* The latest available national data show that in 1952, in confinements in which at least one child was born alive, one set of twins occurred in every 95 confinements, and one set of triplets in every 10,000. The frequency of multiple births varies among population groups, being related to age of mother, birth order, and race (higher for nonwhite than for white races).

Analyses of twin data, when possible, ought to distinguish between identical and nonidentical twins since they are the results of different biological processes. It has been estimated that one out of every three sets of twins born in the United States is identical. This ratio varies with age and race. An inherited tendency to produce twins has been demonstrated for nonidentical twins, but not for identicals. The relationship of twin birth frequency to age of mother is far stronger for nonidentical than for identical twins. The highest frequency of nonidentical twin births occurs among mothers in the 35 to 39 year age group. Although the frequency of identical twins rises more slowly with age, it continues to rise past the age of 40. Frequency of nonidentical twins is related to birth order independently of age of mother.

What are the particular health problems which accompany multiple births? In California in 1953, 54.0 per cent of infants born alive as members of plural sets were premature in terms of birthweight (5 lbs. 8 ozs. or less) compared to only 6.3 per cent prematurity among single births. The high prematurity rate among multiple births is reflected in the high neonatal death rate. A matched certificate study of deaths among infants born in California in 1949 shows that the neonatal death rate for plural births was 87.0 per 1,000 live births compared to a rate of 17.2 for single births. However, when premature infants alone were considered, the neonatal death rate was smaller for plural births than for single births. This difference was particularly large for birthweights near 5 lbs. 8 ozs. and reflects the fact that many infants of plural births below 5 lbs.

(Continued on page 52)

---

* Not all members of each set were born alive. Data on identical and nonidentical twin births and genetic twin studies are from *Principles of Human Genetics* by Curt Stern, published by Freeman & Co., S. F., 1950.

A favorite topical analgesic decongestant

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FORMULA:

Guaiacol	2.60
Beechwood Creosote	13.02
Methyl Salicylate	2.60
Sol. Formaldehyde	2.60
Polyols & Aluminum Silicate q.s.	1000 parts

Prescribed for the relief of chest congestions, localized rheumatism, bruises. 4, 8, 15 and 30 ounce jars.

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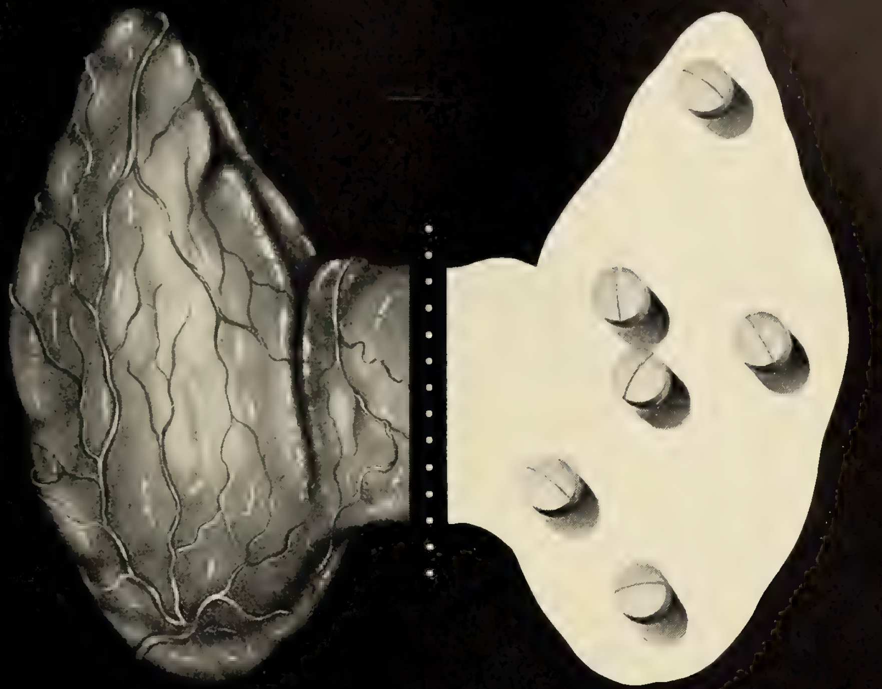

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Synthroid® sodium

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Containing only the active principle of the thyroid gland, SYNTHROID Tablets are odorless, tasteless and free from all impurities. Activity is measured by weight and not by biological standardization. All batches are absolutely identical so that dose-for-dose uniform clinical effect is assured.

SYNTHROID Tablets are available in three strengths, 0.05, 0.1, and 0.2 mg., scored to permit dosage units as small as 0.025 mg. Bottles of 100.

*Starr, P.: Postgrad. Med. 17:73, 1955.

Distributed and available in the eleven Western States through

HYLAND LABORATORIES

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Multiple Births in California; 1953 Data Analyzed

(Continued from page 46)

8 ozs. are not premature in terms of gestation period but are small, full-term infants.

Other problems of multiple births are those which accompany the relatively high frequencies of congenital malformations and complications of pregnancy.

The study of twins is being used in many fields to clarify the roles of heredity and environment in determining the physical and psychological characteristics of the individual. In public health, studies of twins with pathological conditions have shown that hereditary factors are involved in the occurrence of clubfoot, measles, diabetes, tuberculosis, rickets, and among the mental diseases, schizophrenia. The identification of environmental and hereditary factors and the determination of the way in which they interact may lead to methods of preventing a condition from developing in an individual who has an unfavorable genetic background.

—*California's Health,* Vol. 13, No. 6, Sept. 15, 1955.

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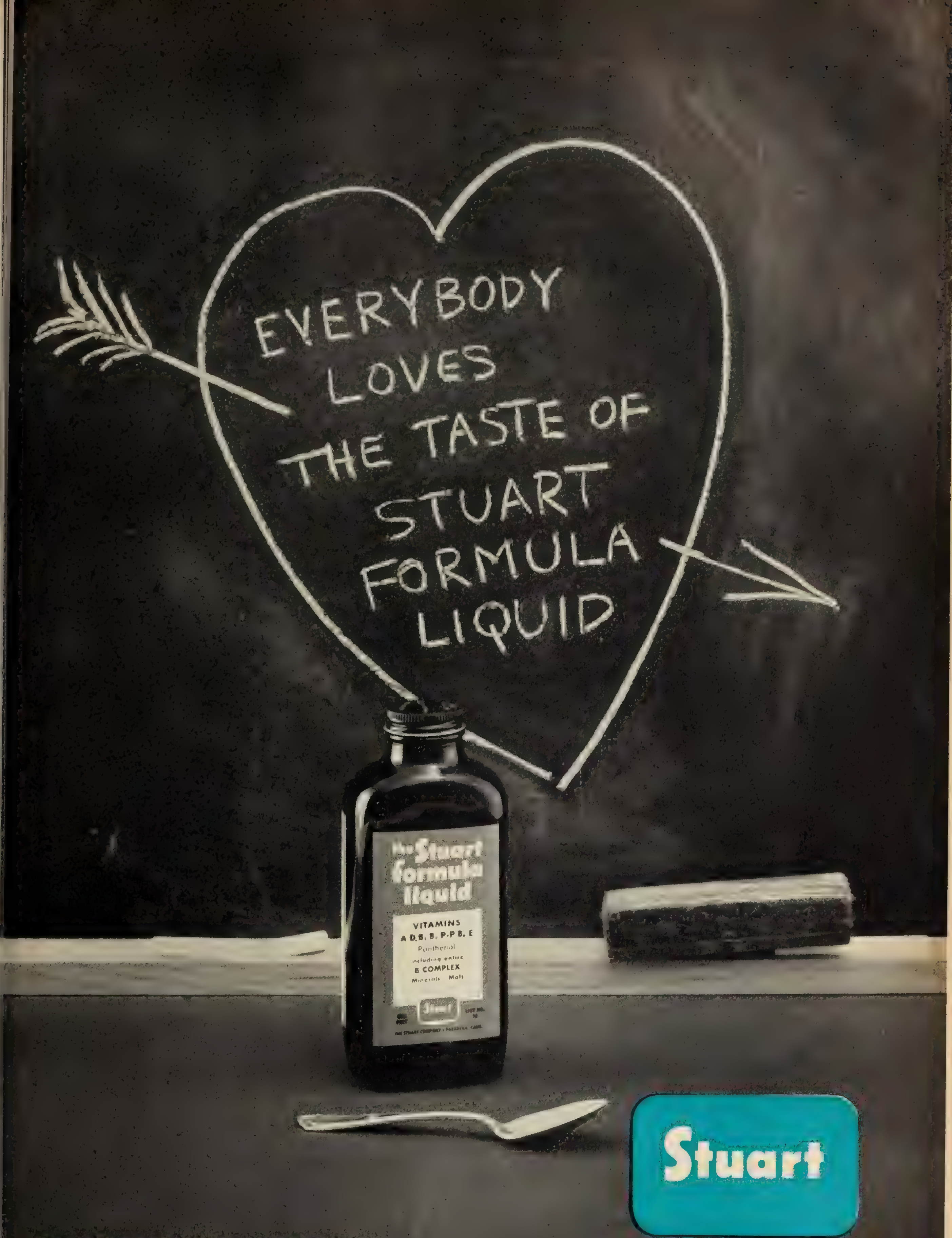
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Polio Vaccine Apparently Will Not Cause Rh Responses

Injection of Salk polio vaccine prepared from virus grown in monkey kidney tissue apparently will not cause Rh blood factor responses in humans, four Philadelphia scientists recently stated.

In the last two years many physicians have feared that the repeated injection of Salk vaccine might "sensitize" the recipient to the Rh blood factor, they wrote in a recent issue of the *Journal of the American Medical Association.* Of particular concern to physicians were women in whom the Rh factor has an important effect on childbearing.

The Rh factor is named for the Rhesus monkey in which it was discovered. It is a protein substance normally found in blood cells. Persons without the factor are classified as Rh-negative. When an Rh-negative person receives Rh-positive blood by transfusion, the Rh-positive blood cells act as antigens—stimulating the development of antibodies which destroy the Rh-positive cells.

It had been feared that monkey Rh antigens might show up in vaccine made from monkey-tissue-grown virus. These in turn might cause antibodies to develop in an Rh-negative person receiving the vaccine. This later could cause trouble in pregnancy

(Continued on page 58)

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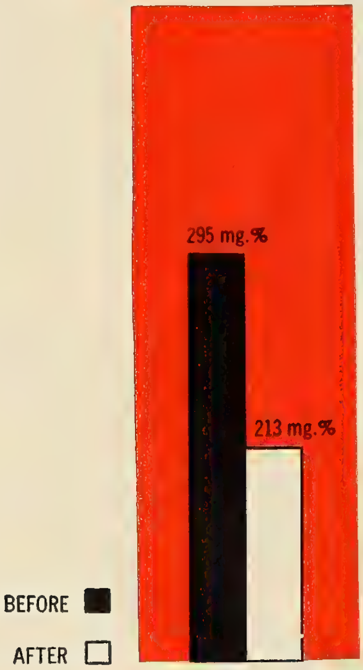

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2. *Sherber, D.A., and Levites, M.M.: J.A.M.A.* 152:*682 (June 20) 1953.*

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Polio Vaccine Apparently Will Not Cause Rh Responses

(Continued from page 54)

or when an Rh-negative individual received an Rh-positive blood transfusion.

Another fear was that the vaccine might sensitize Rh-positive persons to other blood factors.

However, tests failed to disclose any Rh antigens in vaccines made by various processes. The scientists said "exhaustive tests" indicate that the antigens are either removed by processing or else are so unrelated to human Rh antigens as to be "inconsequential."

The researchers found that blood specimens of 100 children inoculated in the Salk field trials contained no Rh antibodies.

In another test, vaccine was injected into Rh-negative volunteers who previously had become sensitive to Rh antigens but who had few or no circulating antibodies in their blood. They showed no significant increase in antibodies after the injection of vaccine.

Rh-negative volunteers who previously were not sensitive received many injections of vaccine and later received whole blood transfusions. They showed no antibodies after receiving the blood, which indicated that the vaccine did not cause antibodies to form.

The scientists stated, "The tests used for this study are the most sensitive tests for the presence of Rh antigens that can be devised or imagined in the present state of knowledge, and they do not show even a trace of Rh antigens in the lots of Salk vaccine tested."

The study by Neva M. Abelson, M.D., Robert M. McAllister, M.D., Arthur Greene, D.Sc., and Lewis L. Coriell, M.D., was supported in part by grants from the National Foundation for Infantile Paralysis and the National Institutes of Health.

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The Status of Corticosteroid Therapy In Dermatology

HERBERT RATTNER, *M.D.*, Chicago

• *Therapy with systemic corticosteroids, despite attendant serious risks, is mandatory in diseases such as pemphigus, acute disseminated lupus erythematosus and some cases of exfoliative dermatitis that are ordinarily fatal, for in such cases life may be prolonged and the patients made comfortable. If no contraindications exist, therapy with corticosteroids is desirable, for diseases of short duration—contact dermatitis, serum sickness reactions and drug eruptions of all kinds—provided the causative factors have been removed and the reactions are causing severe distress.*

On the basis of encouraging reports in the literature corticosteroid therapy may be instituted with justification for a group of unrelated, intractable and discomforting diseases such as maddening pruritus ani, sclerema neonatorum, dermatomyositis, certain cases of sarcoidosis, berylliosis, Behcet's syndrome, universal calcinosis, Reiter's disease and ulcers of sickle-cell anemia.

One must always bear in mind the well-defined contraindications to corticosteroid therapy and the hazards of its use, particularly if therapy is to be prolonged.

Results from topical hydrocortisone therapy are particularly pleasing in chronic eczematous otitis externa and especially when it is combined with an antibiotic drug. Results are excellent also in nuchal eczema, dermatitis of the eyelids and in pruritus ani.

More often than not, hydrocortisone ointment and lotions benefit more than do other standard remedies such diseases as atopic eczema, contact dermatitis, lichen simplex-chronicus and eczematized phases of conditions such as psoriasis and superficial mycotic infections. Preparations containing a combination of hydrocortisone and an antibiotic are more useful than hydrocortisone alone.

When used with discrimination, with full attention to the selection of cases and proper concentration in the correct vehicle, hydrocortisone preparations in combination with antibiotics are excellent antieczematous agents.

It is now approximately five years since the corticosteroids were first made available for general use and specifically recommended for the treatment of rheumatoid arthritis. Very soon, and understandably, steroid therapy was extended to the so-called relatives of arthritis—the collagen group of diseases and diseases of hypersensitivity. And so it was that dermatology in particular felt the impact of this new wonder therapy. As steroid therapy was rapidly extended to more and more diseases, it soon became evident that the therapy had not only assets but limitations and liabilities. Because the drugs are capable of producing profound systemic reactions—some tragic in their consequences—there is still considerable disagreement as to the justification for

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Guest Speaker's Address: Presented before the First General Meeting at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

their use for certain conditions. Yet in general they are being employed with ever increasing frequency and for more and more diseases, so that, as some one waggishly remarked recently, "Physicians may be divided into three classes: Those who use ACTH or cortisone for everything, those who never use them for anything, and those who use them only when they are needed."

It would seem that sufficient time has passed to permit the formulation of definitive indications. However, this has proved difficult because of the fact that, although remarkable progress has been made in the fundamental knowledge of the steroids, so much still remains unknown of their actual mode of action. There is still no full explanation as to why one drug is sometimes more effective than the other; still no way of formulating precise dosage; and still insufficient knowledge of the full effects or hazards from prolonged therapy. It would seem that a workable plan could be formulated, for in general the corticosteroids have proved a boon for skin diseases of three general groups: Diseases such as pemphigus or acute disseminated lupus erythematosus that are usually fatal; diseases such as crippling eczema that are not fatal but which may ruin life; and diseases such as discomforting drug eruptions or widespread acute poison ivy dermatitis which are of short duration provided the causative factors have been removed.

There is general agreement that corticosteroid therapy, when combined with both supportive measures and with antibiotic agents to control infection, constitutes the best therapy yet devised for the treatment of pemphigus. Patients with pemphigus are alive today who undoubtedly would not be had corticosteroids not been available. Large dosages are often necessary for patients with pemphigus—as large as 1,000 mg. or more a day of cortisone for a while—and, of course, therapy has to be maintained for long periods despite the risks of Cushing's syndrome, diabetes, psychosis and fractures. These constitute calculated risks which seem important when life itself is at stake, and beneficial effects from the drugs in such cases have thus far greatly outnumbered the incidence of distressing effects. Usually patients with pemphigus respond alike to corticotropin, cortisone or hydrocortisone; but in some instances, and for some unexplained reason, one drug proves effective where the others fail.

Perhaps the most dramatic results from this therapy occur in patients with acute systemic lupus erythematosus, but not in the chronic or subacute forms of the disease. There have been innumerable reports of moribund patients coming to life after a day or two of therapy. The author's first experience with such a case left an indelible impression. The patient was a youngster in her teens who was sadly close to death. The hospital had just received a new drug called ACTH—one of the first supplies of the drug to be released five years ago for experimental purposes only. It was administered to the girl, who was hopelessly moribund, and within 48 hours she was sitting up in bed, talking and alert. At last report, not long ago, she was still in fairly good health. After an experience like that it would be difficult to withhold such treatment from patients with acute systemic lupus erythematosus even though the drugs effect no cure but merely suppress symptoms—and, as with pemphigus, patients eventually die of the disease.

The use of corticosteroid therapy, it would seem, is not only justifiable but often desirable in diseases with reactions of hypersensitivity that are usually self-limited, such as severe drug eruptions, acute angioneurotic edema, erythema multiforme or dermatitis venenata. If the causative factor has been removed (drug discontinued, irritating plant or chemical discarded), quick relief from discomfort can usually be attained by corticosteroid therapy in sufficient dosages. If the eruption is severe, cortisone (or comparable amounts of corticotropin or hydrocortisone) given on a schedule of 300 mg. in divided dosages for 24 hours followed by 200 mg. for a day or two, and then decreasing by 25 or 50 mg. each day, usually effects gratifying relief to the patient. And the entire treatment is complete within a week or two so that risks from it are lessened considerably.

It is with the third group of diseases that a good deal of soul-searching is required before instituting corticosteroid therapy—that group of chronic, nonfatal diseases such as atopic eczema or eczematized psoriasis that become so acute or widespread as to constitute a life-ruining or crippling disease. Long-term therapy is usually necessary for such diseases and the hazards of prolonged therapy may be such as to raise a question as to whether the treatment is justified. Certainly it would seem justified if in the physician's opinion the patient is actually incapacitated, for in such cases therapy for a short period would effect relief enough to restore the patient's usefulness, albeit for a relatively short time. But what of the patient who, because of the comfort obtained, understandably pleads for continued treatment although he can scarcely be classified as being incapacitated? Even the more intelligent patients in those circumstances tend to throw caution to the winds and it is then that the physician's position becomes difficult. But no matter how difficult, it is essential that he assume control of the situation just as he does in prescribing narcotic drugs for alleviating pain. Fortunately, investigators have studied the problem and have supplied a workable slide-rule. In the field of dermatology, Sulzberger and co-workers[4] recently reported their observations on a group of 35 patients with chronic and recurrent skin diseases in which they attempted to ascertain whether or not prolonged therapy affected three things: either increased tolerance or diminished therapeutic effectiveness; addiction; or ill effects higher in incidence or different in kind from short term medication. It would seem from their experience that long-term therapy for chronic recurrent eczematous eruptions may be instituted justifiably as a calculated risk provided certain precautions are observed—of which more later. Their procedure was to institute dosages large enough—cortisone up to 300 mg. a day in divided doses—to allay symptoms quickly. If necessary the dosage was increased unhesitatingly but then, in order to avoid a rebound-reaction, they reduced it by "feeling" their way, for there is not yet a mathematical guide to dosage. If possible the dosage should be brought below 100 mg. daily relatively soon, for the incidence of reactions tends to increase when doses are higher than 100 or 125 mg. daily. As was to be expected, frequently it was found necessary to increase the dosages for a while in order to care for flareups, but it was found, too, that many of the patients were kept comfortable by dosages as low as 5 mg. of cortisone every second day.

Should the experience of additional observers parallel those of Sulzberger and co-workers—and it appears that they will—it is quite likely that long-term therapy for discomforting diseases may become more widely used despite the misgivings of some experienced investigators. Such misgivings are well founded, for corticosteroid therapy is capable of masking hidden active infections and it may reduce fever and maintain a feeling of well-being in the face of serious infections and destruction of tissue. Some of these unfortunate complications may not manifest themselves until some time after the steroid therapy is begun. It may render perforation of a viscus painless. Such therapy may also produce convulsions and psychotic reactions, severe headache, edema, glycosuria and the oft-mentioned Cushing's changes of moon facies, hirsutism, adiposity, striae, acne and buffalo neck. Fortunately these changes are usually reversible but not the disastrous fractures from the relatively rare osteoporosis.

For such reasons it is essential never to institute corticosteroid therapy unless first ascertaining whether or not the patient has or has had diseases such as diabetes, hypertension, peptic ulcer, pulmonary tuberculosis or personality disorders. If the therapy is to be used for long, it is well to determine the blood cell count, the serum sodium, potassium and calcium levels and the fasting blood sugar level, and to have roentgenograms of the long bones for evidence of decalcification. The patient should have a low salt diet (potassium chloride 4 gm. daily) and weekly blood pressure determinations, weight measurements and urinalysis.

It was inevitable, of course, that a therapy capable of producing dramatic results would be used for many and varied diseases, particularly the hitherto intractable diseases. Corticoids have been tried and found useful for the treatment of herpes gestationes but not for herpes simplex or herpes zoster. In fact, herpes zoster occasionally occurs in patients undergoing treatment with steroids for other conditions. Acute lichen planus, but not the chronic form, is helped by corticosteroids, as is alopecia totalis, but this only for as long as the therapy is being used. For the latter condition one must weigh carefully the possible benefits from therapy against the risks, for therapy might conceivably be a life-long matter. Recalcitrant eruptions of the palms and soles is helped sometimes but not always; and other conditions said to be helped on occasion—but not in all cases—are scleroderma, dermatomyositis, dermatitis herpetiformis, sarcoidosis, intractable pruritus ani, sclerema neonatorum, keratosis blenorrhagicum, berylliosis, Behcet's syndrome, universal calcinosis, incontinentia pigmenti, Reiter's disease and ulcers of sickle cell anemia. Corticosteroid therapy has been highly recommended for the control of generalized pruritus of Hodgkin's disease and it is used also as adjunctive treatment to other therapies for lymphoblastomatous disease. Undoubtedly if all reports were in, the list of diseases treated by corticosteroids would be much longer.

TOPICAL THERAPY

When used topically for the treatment of skin diseases, cortisone was found to be ineffective, but hydrocortisone, which was introduced in 1952, has definite value in the treatment of certain of them. At first the short supply and high cost of the drug limited study to relatively few centers, but the first reports were so encouraging that there are now, according to Witten,[5] more than 35 different preparations available, composed of six chemical forms of hydrocortisone. They are incorporated in some 14 different bases, put up in various concentrations from 0.1 per cent to 5 per cent including six preparations in combination form with antibiotics. Available on the market are preparations of hydrocortisone acetate, free alcohol hydrocortisone and fluorhydrocortisone acetate. Other preparations such as chlorhydrocortisone acetate and hydrocortisone cyclopentyl propionate and fluorhydrocortisone free alcohol are being investigated.

The results from treatment with topical hydrocortisone acetate parallel closely those obtained from systemic treatment with corticosteroids. They act to block tissue reactions to disease-producing factors. Hence their greatest value is to reduce inflammatory eczematous reactions of various kinds, such as atopic eczema, eczema ani, contact dermatitis—particularly on the eyelids—lichen simplex chronicus and sometimes seborrheic eczema. As occurs with systemic therapy, chronic diseases in general soon relapse when the ointment is discontinued and on occasion rebound so actively as to leave the patient in a condition worse than before therapy. On occasion, too, a most satisfactory result from its use is observed, particularly in atopic eczema where the symptoms are suppressed as long as the ointment is used. Then there are instances in which beneficial results would be expected from the therapy but the results are disappointing.

It was feared at first that the topical application of hydrocortisone, like systemically used corticosteroids, would be dangerous in the presence of secondary bacterial or mycotic infections. This has not been borne out. In fact, ointments combining hydrocortisone and antibiotics have given superior results in superficial infections with the possible exception of herpes simplex. Primary irritation or sensitization-reactions from hydrocortisone ointment appear to pose no problem. In the few cases in which irritation has occurred it apparently was due to the base, but of most importance there has been to date no evidence of undesired systemic complications from relatively prolonged use of hydrocortisone acetate or free alcohol-type ointment in the dosages employed. As Lorincz[2] pointed out, however, because of its convenience and rapid symptomatic effects, many patients may be committed to hydrocortisone ointment who will become dependent on it for relief and who may continue to use it for long periods. The ointment has had extensive use for only a little more than a year so that the hazards to the skin from long-term use, if any, have not yet been determined in a sufficient number of cases. "As sign-posts of caution we should keep in mind the well known degenerative effects produced in connective tissue by intradermal hydrocortisone injections,[1] and the observations of Piccagli et al.[3] on the synergistic effect of systemic cortisone administration in mice on epidermal carcinogenesis induced with methylcholanthrene. Thus we might ask—what, if any, is the risk of inducing connective tissue degeneration and consequent premature aging of the skin by prolonged topical hydrocortisone therapy—and what, if any, is the risk of enhancing the development of malignant changes in the skin by such long-term use of topical hydrocortisone."

These risks, even if they are more theoretic than real, should have the attention of investigators, for the employment of hydrocortisone preparations for topical therapy is increasing constantly. Indeed, we are in a period of too-reckless use that may well result in disappointment with a drug that does have undoubted value if used with discrimination. To use it indiscriminately in place of other well established modalities must lead to disappointment. Such factors as the use of an ointment when a wet dressing is indicated, the failure to remove causative irritants when possible, neglect in employing a proper vehicle, failure to adjust to a proper dosage, all contribute to disappointing results. The use of hydrocortisone ointment on noneczematous lesions also constitutes indiscriminate use, for hydrocortisone ointment has no value when applied to common conditions such as psoriasis, discoid lupus erythematosus, lichen planus, alopecia areata, keratoses or warts.

We at Northwestern University recently completed a study of some 1,200 patients treated topically with hydrocortisone acetate in different concentrations and in various vehicles.* Whenever possible, simultaneously paired comparisons were made, using hydrocortisone preparation on one side of the body and the base—or sometimes an old standard-type ointment—on a similar lesion on the opposite side. The results were rather similar to those already noted in other reports. A good response from the ointment was obtained in approximately two-thirds of the cases of atopic and infantile eczema, in contact dermatitis and in localized neurodermatitis—a ratio just a little better than that obtained by older effective therapy. The effects were superior to older methods in dermatitis involving the eyelids, in nuchal eczema and especially in chronic eczematous otitis externa. In acute poison ivy dermatitis, hydrocortisone-antibiotic suspension effected excellent results, but not the ointment. And the suspension was effective also in eczematous eruptions involving the axillae and crural areas. The response to hydrocortisone ointment was highly satisfactory in anogenital pruritus, but more so in pruritus ani than pruritus vulvae. Hydrocortisone was less effective in nummular eczema, seborrheic dermatitis and infectious eczematoid dermatitis, although on occasions dramatic results were observed in all three of these conditions. It should be mentioned that favorable results were not invariably obtained in any disease, not even in contact dermatitis of the eyelids.

It was noted that a concentration of 1 per cent hydrocortisone acetate ointment in a base of liquid paraffin, petrolatum, cholesterol and multiwax was adequate for routine use. It was superior to 0.5 per cent ointment but occasionally was inferior to 2.5 per cent concentration. Sometimes a cream-type base was more desirable than the ointment and the suspension was better for use on widespread areas, in hairy areas and in folds such as the axillae and groins. Preparations containing hydrocortisone and neomycin appeared to be a little more effective than hydrocortisone alone. No difference in the results as between the acetate and the free alcohol preparations was observed. Neither proved irritating. Both had only a localized action. The fluorohydrocortisone ointment about which there is at present some uncertainty as to whether it is free of systemic effect, was not used.

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*The materials for this study were supplied by the Upjohn Co., Kalamazoo, Mich.

104 South Michigan Avenue, Chicago 3, Illinois.

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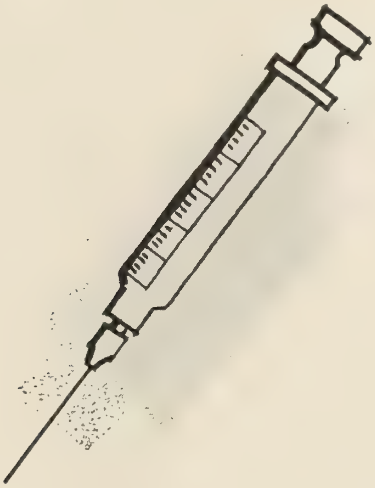

Acute Infections of the Gastrointestinal Tract

JOHN M. RUMSEY, *M.D.*, San Diego

• Even though "shot-gun" treatment often proves effective in acute enteric infections, attempt to establish accurate diagnosis is still worthwhile. In most cases acute enteric infection is self limited and responds well to symptomatic treatment. Postantibiotic diarrhea is relatively common and is often severe. Usually the organism is staphylococcus and at present, at least, erythromycin seems to be the drug of choice in treatment.

Antibiotics should be used only when definitely indicated. Indiscriminate "specific" treatment for acute diarrheas may mask acute infections with organisms which are suppressed—not conquered. These infections present a potential public health problem.

Cases of acute gastroenteritis that are apparently of staphylococcic or viral origin should be managed symptomatically at first. If satisfactory response is not obtained quickly, accurate bacteriological diagnosis should be sought.

During the lifetime of the present generation of American physicians, the concept of the relative importance of acute gastrointestinal infections has undergone great change. Some years ago, these infections represented a major public health problem and a vital phase of general medical practice in the country. In the past 20 years, however, enteric infections have assumed a position of less importance—first, because of the efforts of public health departments everywhere; second, because of widespread instruction in sanitation and pursuance of sanitary measures on both an individual and a community level; third, the use of anti-infectious agents; and fourth, the greatly increased availability of good medical care.

The favorable position of present-day physicians with regard to gastrointestinal infections is, nevertheless, a kind of double-edged sword. The patient, as well as the physician, is likely to treat a potentially serious infection much too casually. The majority of acute gastrointestinal problems consist of acute staphylococcus infection or toxemia—so-called "food poisoning." When a physician considers the differential diagnosis in these conditions, there are several possibilities, most of which look quite similar at the outset. There is usually a fairly acute onset of nausea and malaise, abdominal cramping, diarrhea, and frequently, vomiting. Rarely can specific stool characteristics permitting exact diagnosis be found. Differential diagnosis of acute diarrhea must, therefore, be established. Following is a list of 11 of the more common causes:

1. Acute staphylococcal infection.
2. Acute staphylococcal toxemia.
3. Postantibiotic diarrhea.
4. Acute shigellosis.
5. Acute salmonellosis.
6. Acute viral gastroenteritis.
7. Acute "touristas."
8. Amebiasis.
9. Acute nonspecific ulcerative colitis.
10. Acute exacerbation of irritable colon.
11. Acute diverticulitis.

Certainly the commonest is acute food poisoning—generally a staphylococcal gastroenteritis resulting from toxic products of staphylococcic growth. Clinically this disease is characterized by severe nausea and vomiting, with diarrhea and abdominal cramps. There may be moderate fever, malaise, occasionally severe prostration, and sometimes weakness and fainting. The patient may be quite ill at first, but the disease is, in general, self limited. As soon as the toxic products of bacterial growth are discharged and the irritability of the gastrointestinal tract is relieved, the patient recovers.

A substantial proportion of the cases of acute gastrointestinal disease seen by the average physician probably are cases characterized by the syndrome described. Each physician has his own method of managing it, and each probably believes his particular regimen is best. However it is done, symptomatic treatment usually meets with success. As a student, the author was told that the most rapid means of ridding the patient of toxic products was by saline purge, but the results by this method, on the few occasions it was tried, were singularly unimpressive as compared with results obtained by usual procedures. Many drugs suggested for use in the management of such cases involve, primarily, medication to alter gastrointestinal tract motility, adsorbents, ion-exchange resins,[6] opium, and other sedatives. When a patient has acute toxic vomiting, the author knows of nothing that will more quickly alleviate symptoms than a large dose of sodium phenobarbital with atropine, given intravenously and followed by kaolin

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From the Department of Gastroenterology, Rees-Stealy Clinic, San Diego.

Part of a Symposium on Disorders of the Intestinal Tract presented before the Section on General Practice at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

preparation mixed with paregoric. The patient's diet should be limited for several days thereafter. Heat may be applied to the abdomen, and if fluid loss has been great, fluid and electrolyte replacement by parenteral feeding may be necessary. In some cases of staphylococcic gastroenteritis, an antibiotic—erythromycin—is required. It has proved most effective.

Staphylococcic gastroenteritis sometimes takes an acute fulminant form. In 1953 Terplan[15] reported an epidemic of acute fulminant staphylococcic gastroenteritis occurring postoperatively. Eight patients were affected and all died. The onset of this syndrome began with gastrointestinal upset, diarrhea, fever, shock, and a toxic state so severe and debilitating that the patient had little chance to react from it. The syndrome took place, in each instance, after operations differing in type each from the others, and death followed in three to eight days. All patients received antibiotics, apparently in rather small amounts—penicillin, streptomycin, aureomycin, terramycin and chloramphenicol. Conditions noted at autopsy were: Loosely adherent membrane, with some invasion of the mucous membranes, badly inflamed mucosa, and an obviously overwhelming growth of staphylococci. The staphylococci were of a coagulase-positive hemolytic strain. Since Terplan's report, a number of other similar cases have been identified. Apparently, heroic supportive measures are the only means of checking this disease, together with some agent to stop growth of the staphylococcus. (Dr. Terplan told the author that chloramphenicol is the only drug to which staphylococci were found never to be resistant. He said that, in England, many strains of coagulase-positive staphylococci were found to become resistant to erythromycin. The belief in this country is that erythromycin will conquer this type of infection.)

Kleckner, Bargen and Baggenstoss[10] reported cases similar to those reported by Terplan, that were diagnosed as severe acute pseudomembranous enterocolitis, and in which rapid progressive circulatory collapse occurred. These cases were quite resistant to supportive or resuscitative treatment, and irreversible shock and death took place in a matter of hours. The disease resembled Asiatic cholera, was associated with some fever, severe acute abdominal distention, congestive failure, vomiting and not much diarrhea. Dr. Terplan said he felt that this was not the same disease as that in his series.

As a rule the usual postantibiotic diarrhea[2,4,9,11] is owing to staphylococcic gastroenteritis, which may be considerably debilitating. The condition is characterized by watery diarrhea, abdominal cramping, loss of weight and often fever. Gastrointestinal disturbances, especially diarrhea, should be warning signals. If symptomatic treatment does not give instant relief, the antibiotic in use should be discontinued. If diarrhea should become intractable and staphylococcus aureus should grow on culture, erythromycin seems to be the present drug of choice. If staphylococcus aureus is suspected, the laboratory should be informed, so that suitable media may be used in the culture. Since postantibiotic diarrhea is a frequent and difficult problem, it seems clear that antibiotics should be used only when specifically indicated. In dealing with postantibiotic diarrheas, good results have been obtained with the use of lactic acid cultures and even buttermilk enemas.

Acute shigellosis,[4,5] although less frequent than before, is still an important cause of gastrointestinal infection. Now that potent antibiotics and chemotherapeutic agents are available, in many of the acute diarrheal diseases cultures are not made. Therefore, any present-day statistics on incidence of acute shigellosis are bound to be inadequate. Nevertheless, public health departments in every large city[3,12] report a substantial number of cases of this disease each year. It occurs in all age groups, but is more often reported in children. Although generally there is acute fever with diarrhea, shigellosis may be afebrile at the onset. One-third of a large group of children reported upon in a series from Chicago did not have fever in the early stage of the disease. If fever is present, it may last for more than a week. Stools may vary in type—some are bloody and some are not. The patients may have symptoms in areas of the body other than the intestinal tract—predominantly respiratory or central nervous system symptoms. When vomiting occurs, shigellosis is often impossible to differentiate clinically from food poisoning. Strangely, it affects food handlers frequently, creating a serious public health menace. The disease is diagnosed by culture.[8] Cultures of material removed by sigmoidoscope are most dependable, and cultures of the passed stool least so. Culture of a rectal swab seems the most practical method. Shigellosis is treated effectively[7] by streptomycin, both orally and parenterally, aureomycin, terramycin or sulfasuxidine.

Any discussion of acute gastrointestinal infections is not complete without mention of salmonellosis. Typhoid fever still strikes. Even though only a few cases crop up in the large cities each year. Physicians must be aware of it and attempt to diagnose it as early as possible. Although chloramphenicol seems the treatment of choice and an effective agent, typhoid fever remains a serious problem. The mortality rate is high. A recent report[1] from Mexico City described excellent results in the treatment of typhoid fever with use of synnematin B. In the preliminary study, synnematin B seemed to be a distinct improvement over chloramphenicol.

Other salmonella infections happen in all age groups.[3,12] They, like shigellosis, occasionally are afebrile in the beginning; fever for more than a week is not unusual. Excessive diarrhea occurs more often than not, and there is evidence of respiratory and central nervous system symptoms. Salmonella, again similar to shigellosis, may be difficult to differentiate from acute food poisoning. This infection also affects food handlers often enough to create a public health hazard. The drugs of choice are chloramphenicol and sulfasuxidine.[7]

A somewhat nebulous but well enough defined clinical entity is viral enteritis.[4,14] In everyday practice, more cases of acute gastroenteritis are attributed to viral infection than to any other cause. Viral enteritis ordinarily is epidemic and mild, associated with nausea, diarrhea, abdominal cramping, low grade fever, malaise and coincident coryza. The disease limits itself as a rule, and the treatment of choice is again symptomatic. How often viral enteritis takes place is hard to determine. Certainly well-documented epidemics of it have been reported. When it is manifest in sporadic bouts, it is difficult to diagnose and difficult to differentiate from a nonspecific irritable colon disturbance secondary to respiratory infection. It is well known that respiratory infections commonly excite flare-ups of ulcerative colitis and peptic ulcer, as well as irritable colon. There might be some direct connection between these episodes and disease directly involving the gastrointestinal tract.

"Montezuma's revenge," the acute gastroenteritis experienced by many travelers in Mexico, affects travelers in many countries besides Mexico. Interestingly, a Mexican physician has told the author that Mexicans frequently have similar upsets while traveling in the United States, or from one part of Mexico to another. The travelers' acute gastroenteritis is a clearly defined entity that occurs so often that most travelers would rather embark without a camera than without a bottle of paregoric. The cause of this syndrome has been the subject of much discussion and heated argument from one country to another. Many things have been indicted as etiologic possibilities, but it is likely that the cause is a combination of factors. Olive oil, foods cooked in olive oil, sesame oil used in cooking, herbs, peppers and tomatoes have all been mentioned as potential troublemakers. Staphylococcus contamination makes a major contribution. Many tourists have previously assaulted their gastrointestinal tracts with large quantities of alcohol, and sometimes the alcohol itself may account for the acute problem. If not, it adds to the difficulty. In the same vein, fatigue connected with travel and entertainment incident to travel can contribute to preparation of the individual for the gastrointestinal cataclysm. Allergic sensitivity to food is a possibility, since people on vacation will throw caution to the winds and attempt things they would not think of at home. The author believes that amebiasis seldom produces the "tourista" syndrome. The course is self limited and sequelae practically nonexistent—which would not be the case if so many people with amebiasis were treated symptomatically.

The clinical features of travelers' gastroenteritis are acute nausea, acute abdominal cramping, moderately explosive diarrhea (seldom, if ever, bloody), fatigue and mild prostration. The disease usually, but not always, limits itself. Treatment once again is symptomatic. Paregoric mixtures are the most essential drugs, although parenteral sedative, such as sodium phenobarbital, may be required when severe and protracted vomiting takes place. Dietary limitation to the blandest of foods for a short period of time is mandatory, as is a period of rest. The rationale for using drugs of the hydroxyquinoline group for instance, vioform—escapes me, although it does have a number of proponents.

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Electrolyte Balance in Gastrointestinal Disease

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- *Even small losses of gastrointestinal secretions when combined with reduced intake of electrolytes may seriously disturb electrolyte balance. Knowledge of the ionic composition of secretions lost is essential in planning therapy. Loss of gastric contents usually results in excessive loss of chloride; in achlorhydria this is not the case. Loss of sodium and potassium may be large in either case and is often underestimated. Small bowel obstruction results in a more balanced loss of electrolyte which may not affect acid-base balance greatly. In diarrhea loss of base predominates, and may result in a large potassium deficit. Steatorrhea due to nontropical sprue results in large fecal losses of sodium, potassium and chloride, in addition to the large calcium and phosphorus loss. In chronic peptic ulcer excessive ingestion of milk and absorbable alkalies may result in hypercalcemia, azotemia and alkalosis, without hypercalciuria.*

Since renal function is usually adequate in the milder gastrointestinal disturbances, electrolyte and fluid replacement should be started early, and can be guided by generally available laboratory tests, the carbon dioxide combining power and serum chloride levels, provided the predominate ionic loss is known and potassium deficiency remedied. If this is done, development of serious fluid and electrolyte deficits can usually be prevented.

THE LOSS OF LARGE VOLUMES of gastrointestinal secretions rapidly depletes body water and electrolytes. Serious complications rapidly result, and the need for prompt replacement therapy is evident. Milder disturbances of reabsorption in the gastrointestinal tract, however, result in loss of fluid and electrolytes which may not be promptly recognized. Although the degree of loss may not seem alarming, when combined with the reduced intake which almost always is concomitant significant depletion slowly but surely results. In such circumstances physicians are likely to defer expensive laboratory studies, expecting that the patient will improve, and indeed may aggravate the situation by either further diluting the body's electrolytes or administering excessive amounts of sodium chloride. However, if it is recognized that this problem is developing, and if the electrolyte content of secretions that are lost is known, correct replacement can be begun before signs and symptoms of disturbed electrolyte balance appear. In many cases this will prevent development of serious deficiencies of fluid and electrolytes and will hasten recovery.

In healthy persons total body water approximates 60 per cent of the body weight. With obesity the proportion drops, to as low as 42 per cent in the very obese.[5] Two-thirds of the body water is intracellular and one-third extracellular. Of the body weight approximately 40 per cent is intracellular water and 20 per cent extracellular, the latter being further divided into interstitial fluid and plasma, 15 per cent and 5 per cent respectively (see Chart 1).

Electrolytes in body fluids are now known to have two important functions. Inorganic ions play an important role in the specific function of cells such as nerve and muscle, and act as enzyme catalysts in metabolic processes. Cell membranes are no longer thought to be impermeable, but rather to be the site of continuous ionic interchange, with concentration gradients maintained by intracellular metabolic processes.[7] However, the older static concept of ions maintaining proper acid-base balance and controlling the distribution of body fluid is still useful in understanding the principles of replacement therapy.

Electrolytes in solution dissociate to form charged particles called ions. Positively charged ions, or cations, found in body fluids are sodium^{+}, potassium^{+}, calcium^{++} and magnesium^{++}. Negatively charged ions, or anions, are chloride^{-}, phosphate^{--}, bicarbonate^{-}, organic acids and proteins. Acid-base balance depends upon the number of acidic and basic ions present, since one basic ion will neutralize one acidic ion, even though the actual weights are different. To clearly express this activity, the unit milliequivalent is used. For a monovalent ion the equivalent weight is the atomic weight, but for a bivalent ion, which can neutralize two monovalent ions, the atomic weight equals two equivalents. Since weights of electrolytes are expressed in milligrams per 100 cc. of body fluid, the milliequivalent is used to permit use of whole numbers. To convert

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Part of a Symposium on Disorders of the Intestinal Tract. Presented before the Section on General Practice at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

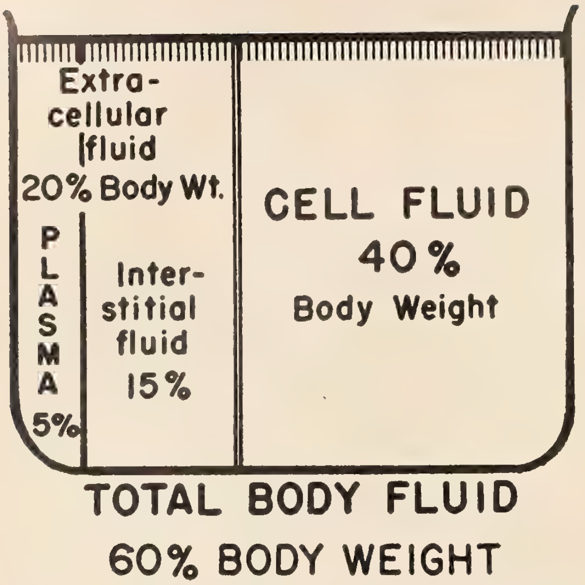

Chart 1.—Fluid compartments of the body (from Statland, H., Fluid and Electrolytes in practice, Lippincott, Philadelphia, 1954).

values in milligrams into milliequivalents the following formula is used:

MILLIEQUIVALENTS

$$\frac{\text{mg. \%}}{\text{atomic weight}} \times 10 \times \text{valence} = \text{mEq./L}$$

The chemical composition of extracellular and intracellular fluid is quite different in respect to sodium and potassium (Chart 2). The plasma protein content is the important difference between plasma and interstitial fluid. Interstitial fluid contains 138 mEq. per liter of sodium, 108 mEq. per liter of chloride, and 27 mEq. per liter of bicarbonate. In comparison, intracellular fluid contains 157 mEq. per liter of potassium, 26 mEq. per liter of magnesium, 110 mEq. per liter of phosphate and 74 mEq. per liter of protein. When serious electrolyte depletion occurs, the concentrations of sodium and potassium are altered, which interferes with cellular metabolism and in extreme cases may cause death.

Distribution of body water also depends upon the number of particles in solution, since water moves through a semipermeable membrane to the side containing the more concentrated solution until the solutions are equal in concentration. This shift is called osmosis. Osmotic force has no relation to chemical activity, or valence. Therefore, for an electrolyte the unit of osmotic pressure, or osmol, is that of a molar solution, or the gram atomic weight of the electrolyte per liter of solvent. To convert from milligrams per 100 cc. of body fluid to milliosmols (mOsm.) per liter, therefore:

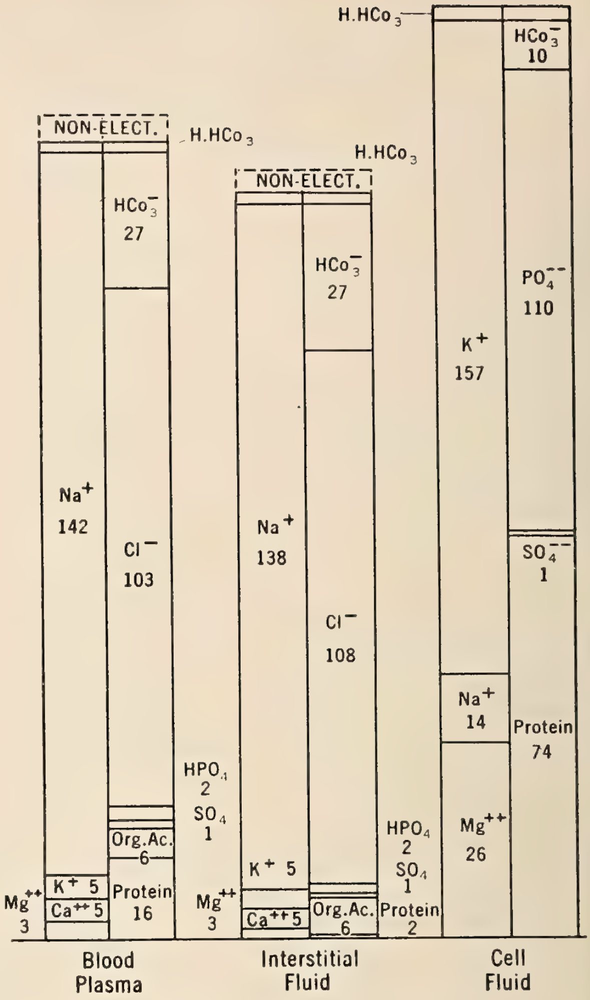

Chart 2.—Electrolyte composition of plasma, interstitial fluid and intracellular fluid (from Hardy, J. D., Fluid Therapy, Lea & Febiger, Philadelphia, 1954, and Bland, J. H., The Clinical Use of Fluid and Electrolyte, W. B. Saunders Co.).

MILLIOSMOLS

$$\frac{\text{mg. \%}}{\text{atomic weight}} \times 10 = \text{mOsm./L}$$

Since most of the ions present in body fluid are monovalent, the total of milliequivalents of anions and cations is a reasonable approximation of milliosmols present. Normally milliequivalent of chloride plus milliequivalents of carbon dioxide combining power equal 130 per liter. These determinations can be made in most laboratories, and are an important guide in therapy. If the total is less than 125 milliequivalents, osmolarity is decreased and more electrolyte is needed; if over 135, more water is needed to restore normal balance.[5]

An idea of the magnitude possible in abnormal loss from the gastrointestinal tract can be gotten by considering the total 24-hour volume of gastrointestinal secretions:

Gastrointestinal Secretions (from Hardy,[5] p. 45)	Approximate Volumes ml./24 hours
Saliva	1,500 cc.
Gastric juice	2,500 cc.
(5 to 6 L. may be aspirated in pyloric obstruction)	
Bile (hepatic)	500 to 1,000 cc.
Pancreatic juice	900 cc.
Intestinal juice	3,000 cc.
	8,400

The total of 1,500 cc. of saliva, 2,500 cc. of gastric juice, 500 to 1,000 cc. of bile, 900 cc. of pancreatic juice, and 3,000 cc. of intestinal juice is almost two and a half times normal plasma volume. Any considerable loss results in rapid changes in the body's fluid and electrolyte distribution. Added to this is the daily obligatory fluid loss of 1,500 cc. —900 cc. through respiration and the skin, and a minimum urine volume of 600 cc. In correcting deficits the body's needs should first be calculated separately, that is, nutritional needs (usually glucose or fructose), electrolyte needs, and fluid needs, so the correct solutions to make up the total deficit may be administered.

Clinically loss of saliva and gastric juice through vomiting, pyloric obstruction or gastric intubation is frequently encountered. The loss of potassium and sodium is often underestimated. An important contributory factor is the failure of the body to maintain a positive potassium balance when intake is restricted,[2] showing that the body cannot conserve potassium as it does sodium. The electrolyte content of saliva and gastric juice reveals a mean sodium content of over 40 mEq. per liter for both, and higher values for potassium and calcium in saliva—20.4 and 6.5 mEq. per liter, respectively, as compared with 11.6 and 3.6 mEq. per liter in gastric juice.[1] Gastric juice potassium values significantly above normal were noted in persons who were hyposecretors or achlorhydric.

Studies on cases of pyloric obstruction due to peptic ulcer have shown a large chloride loss in excess of sodium[6]:

Pyloric Obstruction—mEq. per liter

	Peptic Ulcer		Achlorhydric (Cancer)	
	Range	Mean	Range	Mean
Chloride	76-157	126	39-110	58
Sodium	21-82	56	24-91	61
Potassium	6.5-26	12.6	7.1-24.6	10.2

On Levine tube drainage the mean chloride value was 126 mEq. per liter. In the achlorhydric patients with carcinomatous pyloric obstruction the chloride loss was still large, in the form of sodium and potassium chloride. The mean chloride value in these cases was 58 mEq. per liter. Mean values for sodium and potassium were about equal in the patients with ulcer and in those with achlorhydria, being near 60 mEq. and 10 mEq. per liter respectively. Some patients with a loss of 3 or 4 liters a day lost 78 to 104 mEq. of potassium, equivalent to the potassium in 6 to 8 grams of potassium chloride. A hypochloremic hypopotassemic alkalosis results, which will not respond to treatment unless adequate amounts of potassium are given. If renal function is normal this can safely be done by adding 3 grams (40 mEq.) of potassium chloride per liter of fluid. Osmolarity may be relatively unaffected if loss of salts and water has been proportionate. Since electrolyte loss usually exceeds water loss,[5] the resulting hypotonicity may require hypertonic saline solution (3 per cent) for correction.

·M-EQ

TOTAL BASE	CL	HCO_3	
40	160		Fundus gastric juice
188	142		Pylorus juice
182	90	45	Hepatic bile
168	115	45	Pancreatic juice
177	120		Duodenum
155	150	20	Jejunum
162	80	90	Ileum
160	80	92	Colon
164	110	22	Blood serum

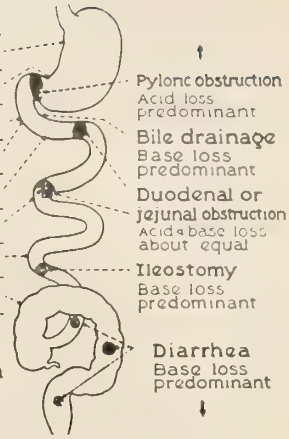

Chart 3.—Ionic composition of fluids at various levels of the gastrointestinal tract (from Coller, F. A., and Maddock, W. G.: Water and electrolyte balance, Surg., Gyn., & Obs., 70:340, Feb. 1940).

In cases of obstruction high in the small bowel, the increased sodium and potassium content in bile, pancreatic juice and intestinal juice balances the chloride excess usually found in gastric juice (Chart 3). Consequently severe reduction of the extracellular fluid may occur without pronounced disturbance of osmolarity or acid-base balance. In these situations isotonic electrolyte solutions are used for replacement, with particular attention to the potassium requirement.

Loss of upper small bowel or pancreatic juice through a fistula poses a difficult problem and cannot be handled properly unless accurate electrolyte determinations can be done. Usually a large volume of fluid with high concentrations of sodium, potassium and bicarbonate is lost.

In the lower intestinal tract secretions there is a higher concentration of base. Hardy[5] pointed out that in low small bowel obstruction the dilated bowel may hold 5 to 10 liters of fluid. In acute diarrhea loss of sodium and potassium may produce acidosis, and the loss of up to 100 mEq. per liter of potassium

TABLE 1.—*Milk-alkali syndrome*

1. Hypercalcemia without hypercalciuria or hyperphosphatemia.
2. Normal serum alkali phosphatase.
3. Renal insufficiency with azotemia.
4. Mild alkalosis.
5. May have calcinosis (eyes, subcutaneous).
6. Rapid improvement when milk and absorbable alkali withheld.

in diarrheal stools[9] often produces a large potassium deficit. Fortunately, renal function is usually normal in these cases, so if adequate urine volume is maintained it would seem safe to give from 80 to 120 mEq. of potassium daily for replacement and maintenance, thus preventing the development of a serious deficit.

In steatorrhea due to nontropical sprue, the increase in fecal calcium and phosphorus has been ascribed to the faulty absorption of fat in the small bowel. Finding an occasional case with acidosis and low serum levels of sodium and potassium during an acute exacerbation suggested that a broader defect of absorption existed. Comfort and co-workers[3] found that fecal losses of sodium, of potassium and of chloride might be as high as fifteen times, two times and five times normal values, respectively. Large fecal losses of calcium, phosphorus and nitrogen were also found. Serious electrolyte deficiencies may result. Corticosteroid therapy seems to favorably influence intestinal absorption in such cases, and present opinion is that this disease involves defective absorption of many things in addition to fat.

Pronounced disturbance of electrolyte balance is occasionally seen in cases of peptic ulcer when large quantities of milk and absorbable alkali have been ingested over a prolonged period of time. The disturbance is called the milk-alkali syndrome, and characteristic findings are: Elevated serum calcium level; calcinosis (most frequently present as an ocular lesion resembling band keratitis); renal insufficiency with azotemia; mild alkalosis; normal serum phosphorus and alkaline phosphatase, and lack of increased urinary excretion of calcium[4, 8] (see Table 1). When patients with this syndrome are put on a low calcium diet and given aluminum hydroxide in place of absorbable alkalies, prompt improvement of the azotemia and hypercalcemia results. This ordinarily distinguishes these cases from primary hyperparathyroidism, where hypercalcemia and hypercalciuria persist on a low calcium intake. In some cases, however, the differentiation may be extremely difficult.

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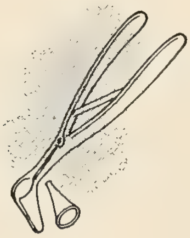

Functional Gastrointestinal Disturbances

Recognition and Treatment

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• The recognition of functional gastrointestinal diseases depends essentially on certain positive features characteristic of them. When there are evidences of associated functional disturbances in other organ systems or in the patient as a whole, or characteristic clinical syndromes are present, and there is lack of symptomatic or objective evidence of organic disease on careful examination, the diagnosis of functional gastrointestinal disorder is likely.

Treatment of functional gastrointestinal disturbances rests fundamentally on the art of medicine in the treatment of the patient and not on the science of medicine in the treatment of a disease. The essential steps in successful treatment include convincing the patient of the diagnosis, improving and relieving symptoms and avoiding or adequately controlling recurrences.

Psychotherapy is a keystone in the treatment of functional gastrointestinal disorders. Not often, however, are the services of a psychiatrist necessary. Given, as needed, mild sedatives, certain forms of specific treatment in specific conditions, general measures and good hygiene and sympathetic understanding, the patient may be expected to recover or improve.

Too often the diagnosis of functional gastrointestinal disturbances is made on the basis of exclusion when evidence of organic disease is lacking. However, the diagnosis should be made on the basis of positive evidence, of symptoms characteristic of these disorders—manifestations just as characteristic of functional disturbances as are those of organic disease when the cause is organic change (Table 1). The diagnosis of a functional gastrointestinal disturbance should be suspected from the history given by the patient and confirmed by suitable physical examination and laboratory and roentgenologic studies. The diagnosis of these conditions is particularly difficult for physicians who cling to the old ideas concerning the origin of the symptoms previously discussed.

It has been said that if the physician will sit and listen, almost every patient will give enough information to permit the correct diagnosis to be made or at least suspected. Good listening is particularly important to the physician who deals with functional problems. Symptoms are sought which suggest familiar complexes and syndromes. As the story progresses questions are asked to complete a recognized pattern of either functional or organic disease.

Certain positive features strongly suggest a functional disturbance. These include symptoms that are characteristic and typical—for example, globus, aerophagia or functional vomiting. These features may be readily recognized in some cases, in others difficult to elicit. Other positive features include long continuance of symptoms without significant impairment of general health; failure to conform to the pattern of any recognizable organic disease; a bizarre timing of symptoms, such as the regular occurrence at six-weekly intervals, the close relationship of them to external stress and emotional disturbances; constancy of symptoms (particularly over a period of years); disappearance of symptoms during the night; the presence of pain with radiation in bizarre fashion to areas without established nervous system relationships; and the presence of burning pain, particularly when it is constant.

Associated Evidence of a Functional Disorder. The occurrence of gastrointestinal symptoms in a patient with other symptoms of an emotional disturbance should make one suspect the possibility of a functional gastrointestinal disorder. Among such associated symptoms are chronic fatigue and nervousness, anxiety and tension, being "tired all the time," having headache, insomnia, "light-headedness," numbness in the fingers and toes, difficulty in getting a deep breath, tremor and cardiovascular symptoms, including blushing, tachycardia, palpitation and cold, sweaty hands and feet.

It is always valuable to note whether the patient has had a normal emotional reaction to the symp-

TABLE 1. — *Points in recognition of functional gastrointestinal disorders.*

1. Positive features
2. Other evidences of functional disorders.
3. Various typical syndromes.
4. Lack of evidence of organic disease on examination.

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toms. Either undue concern or an unusually apathetic attitude toward the complaint should suggest to the physician that he may be dealing with a functional problem.

Various Typical Syndromes. A third significant diagnostic feature is the presence of a clinical syndrome typical of a functional disturbance, such as globus, aerophagia, cardiospasm, functional vomiting and hysterical bloating. However a functional disturbance may be present without causing such a typical syndrome.

Lack of Evidence of Organic Disease on Examination. The final point in diagnosis is the lack of evidence, on examination, of organic disease or of a disease that could produce the patient's symptoms. Physical examination must be thorough and complete. It frequently will reveal other evidences of functional disturbances. In addition to routine urinalysis and blood count, radiologic and laboratory studies should be carried out to the extent demanded by the judgment of the physician. It generally is wise to include studies of the organ which seems affected symptomatically or about which the patient expresses concern or doubt. For success in diagnosis as well as treatment, the patient and the physician must be satisfied that the studies have been complete and thorough.

It seems appropriate at this point to indicate the great importance of rectal and sigmoidoscopic examination, for these examinations all too frequently are overlooked or forgotten. It should be emphasized that occasionally examination of the stool for parasites and ova may give very useful information.

Accuracy of Diagnosis. The diagnosis of functional gastrointestinal disorders when made following adequate clinical evaluation is surprisingly accurate. Wilbur and Mills,[4] for example, some time ago carefully reexamined 354 patients who had a record of a previous diagnosis of functional gastrointestinal disturbance. The reexaminations were done at least seven years after the diagnosis was made and the original diagnosis was reaffirmed in 85 per cent of cases. The organic conditions most commonly found at the second examination which may have been missed and have led to symptoms at the time of the original examination were duodenal ulcer and gallbladder disease.

TREATMENT

The management of a patient with a functional gastrointestinal complaint is largely an art. In other words, it calls principally on the art of medicine in the treatment of a patient and not on the science of medicine in the treatment of a disease. For this reason quacks, charlatans, persons who treat with prayer or practice of religion and cultists without adequate training in the basic medical sciences are frequently highly successful in the management of patients with functional gastrointestinal disturbances. Too often the physician or surgeon skillfully trained in the science of disease approaches the patient from the standpoint of a disease or disturbed organ function and fails to visualize the disturbance in function of the patient as a whole. He does not recognize the "functional disturbance" presented by the patient and therefore is not successful in handling him or he lacks interest in doing so and passes him off as a "neurotic."

TABLE 2.—*Functional gastrointestinal disorders—Treatment.*

Art of Medicine vs. *Science of Medicine.*

Three steps to successful treatment:

1. Convince the patient of the diagnosis.
    (a) Accurate diagnosis.
    (b) Adequate explanation to the patient.
2. Improving or relieving symptoms.
    (a) Psychotherapy.
    (b) Diet.
    (c) Drugs.
    (d) General measures.
    (e) Psychiatric treatment.
    (f) Specific measures.
3. Preventing relapse.

Wide experience makes it quite clear that to be successful in management of a patient with a functional gastrointestinal complaint the physician must like the task just as a good surgeon must like to operate and a good obstetrician like to care for and deliver a pregnant woman.

As was previously mentioned, there are more hopeful avenues of approach to the management of "functional disorders" than is the case with most organic diseases. Briefly, the task of the physician who treats such patients is to establish the diagnosis, to reach the root of the difficulty and to work out an effective plan of treatment in the time he can afford to devote to a single patient. Sometimes this may be very simple, as in the case of a patient with anxiety over rectal bleeding which the patient suspects may be due to cancer of the rectum. But commonly the problem is not so simple and at times it may be very difficult.

The physician who is treating a patient for functional disorder must develop a plan tailored to fit the individual problem (Table 2). Three steps are essential. The first is a well thought out way to convince the patient of the diagnosis; second, a carefully considered program of specific therapy directed toward the patient, his conflict and his symptoms; and, finally, an attempt to show the patient how to remain largely symptom-free and to prevent relapses once improvement has occurred. The physician is guided in what he says and how he says it by his estimation of the patient's intelligence, education, character, past experience and degree of sexual, psychological and philosophical maturity as well as by the characteristics of the conflict situation.

Convincing the patient of the diagnosis requires two steps. The first is an accurate diagnosis and the second an adequate and satisfactory explanation of the situation to the patient. Rare, nowadays, is the patient who is satisfied with the statement, "There is nothing the matter with you; it is 'just nervous indigestion.'" Especially in functional disorders the patient must be convinced of the diagnosis if treatment is to be successful. The physician certainly must let it be known that he does not look upon the symptoms as imaginary. At the same time the patient must be convinced that the symptoms are the body's "normal" response to prolonged anxiety or tension and not indicative of a severe or incurable disease.

It should be relatively easy to show a patient how stress and tension may result in gastrointestinal symptoms. Almost everyone has had some form of gastrointestinal symptoms under stress or with an emotional upset. The patient must be told that a certain amount of tension or stress is a normal part of every day life and that each person has a limit of tolerance for tension or stress and that when that limit is exceeded, symptoms occur. Every effort should be made to preserve the self respect of the patient and the feeling that he is respected in the eyes of members of his family and close friends. When the patient asks questions about the condition, the physician must have an answer to every question and the answers must be consistent.

Above all the patient must be given hope, for hope is the one thing all of us want when we are in trouble.

IMPROVING OR RELIEVING SYMPTOMS

Psychotherapy is the keystone in treatment directed toward relieving symptoms. As "specific therapy" it may be simple or it may require the services of a psychiatrist. Fortunately in most instances the general physician can successfully deal with such a patient. Whitehorn well expressed the situation: "Psychotherapy will consist largely in the thoughtful and respectful consideration with the patient of how the situation might be met more effectively, not by an ideal person, but by the person who is the patient, using to the best advantage the assets and attitudes which he has shown in periods of good adjustment. The whole art of psychotherapy depends largely on learning how to exert this special personal influence strategically to the patient's best advantage in finding a better way to meet a life situation." The establishment of rapport so good that the patient will tell the physician anything and look upon him as a knowing, sympathetic person, is extremely helpful.

Owing to an innate desire to know about themselves, most patients are helped by a free discussion of just what is wrong with them.

Diet. So variable are the needs that it is difficult to generalize about the dietetic management of patients with functional gastrointestinal disturbances. In general, however, a smooth diet, adequate in proteins, vitamins and calories and with as little restriction in variety as possible, best meets the average situation. An increase or decrease in calories depending on the need for a gain or loss in weight may bring about success in some patients. For patients with little appetite, or for hospitalized patients, feedings as far apart as possible (at least five hours) usually are helpful. The need for reduction in roughage or an increase in it when diarrhea or constipation occurs is obvious. Patients should be encouraged to eat slowly and not to eat when tense or under too much stress. At times omission of coffee, alcohol or tobacco may be very helpful. Finally, for patients who require much dietary consideration the services of a skillful and sensible dietitian are invaluable in working out the details of a program.

Drugs. Sedatives are the most useful drugs in the treatment of functional gastrointestinal disturbances. They are not curative but, like a crutch, are exceedingly useful in getting the patient over a crisis, in helping him to regain his feeling of well-being and in giving him an insight into what it feels like to be eased or free of symptoms. Small doses of barbiturates and the occasional intermittent use of chloral hydrate or bromide, prescribed at times in a form new to the patient, and used during the day and to obtain sleep at night, may change the whole outlook of a nervous patient with gastrointestinal symptoms. It is wise to limit the amount of drugs and the period over which they are to be used. In the author's experience not many patients, except the severely psychoneurotic, become psychologically dependent on barbiturates. As physicians feel no grave concern over the way the average "normal" person drugs himself daily with caffeine, nicotine, alcohol and often acetylsalycilic acid, the occasional addition of barbiturates to this daily ration should cause no serious misgivings.

Next to sedatives, antispasmodics in the form of belladonna and its alkaloids and of the many recently developed synthetic anticholinergic agents are the most useful drugs in therapy of functional disturbance. Curiously, a particular anticholinergic drug may work exceedingly well in one patient when others do not, whereas in another patient the converse may be true. Because belladonna and atropine are so commonly satisfactory and so much less expensive, they should be used first.

Chlorpromazine, which acts as a mild depressant to the central nervous system, may be very helpful in controlling functional nausea and vomiting and in augmenting the effects of other drugs in the management of abdominal discomfort and pain.

Antacids, vitamins and dilute hydrochloric acid properly used may be helpful. In some cases smooth bulk substances are helpful in the control of constipation and occasionally in diarrhea; and a variety of symptomatic measures for the control of diarrhea, such as administration of kaolin, bismuth, pectin and even small doses of opiates, may be extremely useful in handling an acute situation or bringing a chronic one more satisfactorily under control. The proper control of chronic constipation alone is one of the most helpful means of relieving functional gastrointestinal disturbances.

Vitamins, particularly of the vitamin B complex, frequently are very helpful in patients who have been on limited diets; in others they have a useful tonic or psychologic effect.

Any discussion of drugs in treatment of patients with functional gastrointestinal disturbances should include a consideration of the placebo response so well emphasized by Wolf. Improvement that follows administration of a particular drug or group of drugs may be wholly psychic although the good effect may be attributed by both physician and patient to the pharmacologic effect.

Recent observations of Beecher and his associates have further advanced understanding of the phenomenon of the placebo response. In study of 162 postoperative patients observed for ability to obtain significant relief of pain from subcutaneous injections of morphine and placebos, these observers found a considerable number of patients who responded with relief of pain following injections of placebos. Fewer than half the patients who received multiple doses of placebos responded consistently to them. There were no sex differences and no differences in intelligence between placebo reactors and nonreactors. In general placebo reactors in stressful postoperative situations behaved in immature, dependent and more outwardly responsive fashion and "thus receive considerable relief of pain through comfort received from attentive nursing care and from confidence in the effectiveness of drugs," while the nonreactor, "withdrawn and rigidly clinging to critical intellectual processes, is less comforted by the care received and evidently more critical of drug effects." Placebo reactors were more productive of response, more anxious, more self centered and preoccupied with internal bodily processes and more emotionally labile.

Much more study and observation must be carried out in this important field before clinicians can properly evaluate the nature of response of patients with functional gastrointestinal disorders.

General Measures. Rest and exercise, extroverting activities, the development of suitable outlets and hobbies and the taking of vacations may be most helpful in the long-time planning of treatment of chronic functional gastrointestinal disturbances.

Specific Measures of Treatment. There are certain specific measures of treatment useful in specific types of functional gastrointestinal disease. These include dilatation of the esophagus for spasm, a dry diet in functional vomiting and aerophagia, voluntary control of belching in aerophagia, manual dilatation of the tight anus in cases of constipation and irritable colon, and the use of smooth bulk substances and abdominal exercises in constipation. An elimination diet may be extremely helpful in patients who suspect they are allergic or who insist that certain foods cause distress, but trial of a limited diet should be restricted to short periods.

Psychiatric Treatment. General physicians can properly treat most patients with functional gastrointestinal disorders. Occasionally in the case of a patient who has severe chronic psychoneurosis or who has psychotic symptoms such as those of depression, or who reflects a notable absence of emotional concern about his condition, or is hysterical or has conflicts which involve deep guilt or serious disturbance of one of the basic emotional drives, a competent psychiatrist should take over the case. Sometimes, however, a physician may carry such a patient along at a superficial level until he is willing to see a psychiatrist.

PREVENTION OF RECURRENCE

Successful management of patients with functional gastrointestinal disorders does not end with control of the presenting situation. Many patients have recurrent bouts of tension, anxiety and gastrointestinal symptoms. Such a patient should be told to expect symptoms whenever tolerance for tension is exceeded. He may avoid a situation that will result in anxiety and tension. Through treatment he may develop insight into his symptoms and build up stress tolerance to the maximum. He may be taught to avoid long and needless worry about new and persisting symptoms and he may also learn simple dietary and therapeutic measures for handling recurrence of symptoms. Since his problem is a medical one, he should not hesitate to seek the advice of his physician at regular intervals or when he gets into difficulties that he cannot himself resolve.

PROGNOSIS

The prognosis of patients with functional gastrointestinal disturbances varies greatly and may be very difficult to estimate. In general the prognosis for patients with simple anxiety and tension and fatigue states is good, particularly when anxiety can be relieved and fatiguing work restricted and rest prolonged. Young persons with emotional and environmental problems that can be solved often improve remarkably and recover completely. For patients with pronounced chronic emotional disturbances or prolonged economic or environmental conflicts that cannot be altered or to which they cannot become accustomed, and for patients with psychotic disturbances, the outlook is often not too good; yet the patient often can be improved, and even a little improvement may be enough to make life worth living again.

ADDENDUM

After careful consideration of this whole problem one cannot but agree in part at least with Josh Billings, who said, "I have finally kum tu the konklusion that a good reliable sett ov bowels iz wurth more tu a man than enny quantity ov brains."

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Surgical Treatment of Bleeding Esophageal Varices

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• *Massive bleeding from varices in the esophagus and stomach secondary to liver disease is a serious surgical emergency, as the patient may bleed to death. The problem is further complicated by the difficulties in making a diagnosis and the poor general condition of the patient due to the long standing liver disease. For the past two years at the San Francisco Hospital this problem has been handled by exploring the stomach and esophagus and ligating the bleeding point. No effort has been made to lower the pressure in the veins to the liver. The results have been sufficiently encouraging to warrant further trial.*

MASSIVE BLEEDING from the gastrointestinal tract secondary to liver disease is a serious problem that is faced relatively often in large city hospitals. The various forms of surgical treatment now in use to stop bleeding of this kind are: Ligation of splenic artery; ligation of hepatic and splenic arteries; injection of varices with sclerosing solutions; esophagogastrectomy and total gastrectomy; esophageal and gastroesophageal tamponade; and ligation of varices transthoracically. Varying degrees of success have been reported from each of the methods. It is the purpose of this presentation to report experiences in 12 cases in which an attempt was made to control the bleeding during the hemorrhage by transthoracic ligation of the bleeding point.

Direct surgical attack on bleeding varices has been described by Boerema (cited by Linton and Warren[7]), Crile[5] and Linton and Warren.[7]

The surgical problem is complicated by two important factors: the poor condition of the patients with consequent high fatality rate from the hemorrhage, and the uncertainty of the diagnosis in many instances. The diagnosis of esophageal varices is by no means certain unless one is fortunate enough to have had previous gastrointestinal or esophagoscopic examination of the patient. The presence of cirrhosis of the liver, while helpful, does not rule out an ulcer of the stomach or duodenum as a source of the hemorrhage. At autopsy of 68 patients with hepatic cirrhosis who died from hemorrhage at the San Francisco Hospital, bleeding was shown to have come from a duodenal ulcer in four patients. This well known association of cirrhosis and ulcer was most recently pointed out by Fainer and Halsted.[6] Twenty-nine per cent of the patients they reported upon had two clinically demonstrable lesions.

Esophageal varices cannot be demonstrated in all patients with cirrhosis who bleed. In the previously mentioned autopsy series, 23 of the 68 patients had no demonstrable cause of bleeding. Conversely, esophageal varices can occur in patients who do not have cirrhosis. Failure to demonstrate varices may be due to the fact, as Palmer and Brick[8] have shown, that autopsy and x-ray techniques are too crude. They were able to demonstrate varices by esophagoscopic means in 22 patients who did not have cirrhosis of the liver. It is interesting that in a few of their cases in which the portal pressure was measured through the esophagoscope, the measurements were within the normal pressure range.

In an attempt to solve this diagnostic problem, some clinicians have utilized the Sengstaken tube.[10] With the balloon in place, material aspirated from the stomach would show blood in patients with bleeding ulcer. The author's experience with the use of the Sengstaken tube is limited, but it has been found to be difficult to place and difficult to hold in place. Moreover, blood was aspirated in some cases even when the bleeding was proved to be from varices. One patient vomited up the balloon in the distended state, and in two patients bleeding began again the moment the pressure was released.

Although the author has not had much experience with gastroesophageal barium examination in the presence of massive hemorrhage, it is difficult to see how a roentgenologist can do an adequate examination on a patient bordering on shock whose stomach may be filled with clots.

Because of this difficulty in accurate diagnosis of the source of hemorrhage, it is felt that in every case in which operation for control of bleeding is done, the stomach ought to be opened. The most adequate approach to the stomach and lower esophagus, as well as the best exposure if a splenorenal anastomosis is necessary, is through a left thoracoabdominal incision.

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In the case of a few patients with atypical history in the present series, 75 cc. of 35 per cent Diodrast® was injected into the spleen. This is a simple procedure, and the x-ray film taken at that time may demonstrate an extrahepatic obstruction (as shown in Figure 2), the only indication for a decompression operation in addition to ligation of the bleeding point.

It is important from the surgical point of view that the patients with bleeding are likely to be in extremely poor state of nutrition and in many instances cannot live long if bleeding continues. This is true generally of patients with cirrhosis. The onset of the hemorrhage in many of these patients seems to occur after a long bout of alcoholism.

Table 1 gives data on the patients in the present series who were operated upon with a presumptive diagnosis of hemorrhage from esophageal varices. It is of interest that in three patients the bleeding point was from a gastric varix. In one of these patients the gastric varix was in a hiatus hernia. There were two cases of extrahepatic obstruction, one certain and one questionable. There were two deaths. One patient died during induction of anesthesia from vomiting and aspiration. Thereafter in all cases the intratracheal tube was placed under local anesthesia before the operation was started. The second death occurred on the twelfth postoperative day and was due to leakage of the gastrotomy suture line with mediastinitis in a severely cirrhotic patient who also had delirium tremens postoperatively.

A left thoracoabdominal incision is used for best exposure of the lower esophagus and stomach. At operation the spleen usually is removed first to facilitate exposure. The splenic vein is preserved for possible anastomosis. The pressure is measured directly in the portal system and the stomach is opened high, near the esophageal junction. If no evidence of ulcer is found in the stomach or duodenum, the esophageal hiatus is exposed with anal retractors. If hemorrhage is in progress, locating the source of bleeding is not difficult, but it may not be from a single point. If the bleeding varix can be discovered, it is sutured with a running stitch.

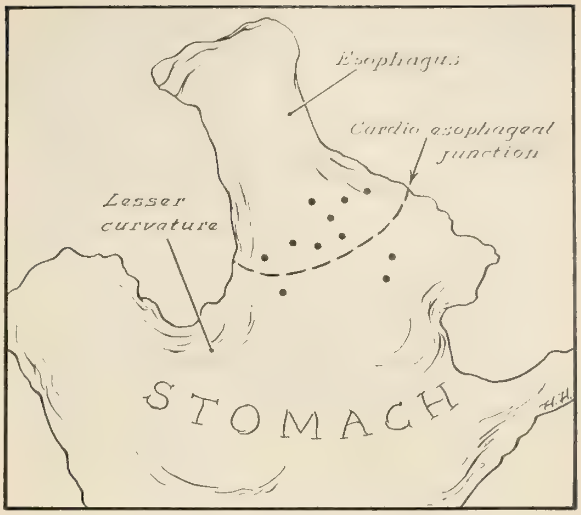

Figure 1.—Diagram showing source of hemorrhage in those cases where a single point was found to be bleeding.

Curiously, although in many cases varices extend the entire length of the esophagus, the bleeding seems to occur invariably either in the stomach or esophagus, within about 5 cm. of the cardioesophageal junction. While it is possible that esophagitis is the cause of hemorrhage in cases in which the bleeding comes from an esophageal varix, it certainly does not explain the bleeding from gastric varices. Undoubtedly there are many causes for the

TABLE 1.—***Data on 12 cases in which transthoracic operation was done to stop bleeding from esophageal varices***

Patient	Age; Sex	Diagnosis	Bleeding After Suture	Deaths	Follow-up (Months)
1	54 M	Cirrhosis	0	0	11
2	61 M	Cirrhosis. Gastric varix.	0	0	14
3	44 M	Cirrhosis	Yes	0	6
4	9 F	Cirrhosis (PCA 1952)	0	Yes	Cholemia 6
5	28 M	Extrahepatic obstruction	No bleeding source demonstrable	0	6
6	38 M	Cirrhosis. Gastric varix	0	0	9
7	65 M	Cirrhosis	0	0	14
8	64 M	Banti's syndrome ? Marginal ulcer ? Extrahepatic obstruction	Yes	0	2
9	68 M	Cirrhosis	0	0	18
10	62 M	Cirrhosis	0	0	5
11	50 M	Cirrhosis	0	Yes	12 days
12	62 F	Cirrhosis	Yes	0	11
13	47 F	Cirrhosis	No bleeding source demonstrable 0	Yes	Died during induction of anesthesia

hemorrhage in such cases. One patient was observed in whom hemorrhages occurred twice in small amounts after a ligation operation, and both times the bleeding followed a severe bout of coughing.

Figure 1 is a diagram illustrating the point of obstruction in the 11 cases in which a single source of bleeding was discovered.

Following are reports of illustrative cases.

CASE 1. *Extrahepatic obstruction, proven by x-ray; splenorenal anastomosis.*

An 18-year-old white man was sent to the hospital on January 20 because of gastrointestinal bleeding. The patient had been well until January 18, when he reported to the surgical clinic for evaluation of an inguinal hernia. At that time an indirect hernia was felt on the right side. The patient stated that he had had an enlarged spleen since the age of seven, but he did not want operation for the spleen since, he said, it had been taken care of by previous treatment. (The spleen could be felt on deep palpation.) The patient left the surgical clinic and that night felt weak and defecated black stools. The following day he again felt weak and had a black stool. On the morning of January 20 he became nauseated and vomited about four times. The first vomitus was dark brown in color and subsequent vomitus contained bright red blood. The hemoglobin content at that time was 7.5 gm. per 100 cc. of blood. Two days before it had been 10 gm.

The patient had had the first episode of hematemesis and melena at age 7, when he was kicked in the stomach by a playmate. A second episode occurred at age 8 when he did some heavy lifting. At age 12 and 15 he again had episodes of bleeding. The enlarged spleen first was noted on physical examination at age 12.

The patient was well developed and well nourished but pale. The spleen was palpable four fingerbreadths below the costal margin. It was firm and slightly tender. The liver and other organs were not palpable. The blood pressure was 130/60 mm. of mercury and the pulse rate 100. An indirect inguinal hernia was present on the right side.

On January 20 and 21 the patient was given six blood transfusions of 500 cc. each and the hemoglobin content rose to 11.9 gm. per 100 cc. Esophagoscopy was done on the afternoon of January 20 and varices were seen, but no actual bleeding point was demonstrated. The patient vomited several hundred cubic centimeters of dark reddish-brown material during the procedure. A Sengstaken tube was inserted. On January 22, following the transfusions as noted above, the patient was doing quite well and the esophageal balloon was deflated and old blood returned from the stomach. The patient was given another 500 cc. of blood at that time. The esophageal balloon was reinflated. On January 24, with bleeding continuing, another 1,500 cc. of blood was required and, accordingly, surgical treatment was instituted. A preoperative hepatogram was made (Figure 2).

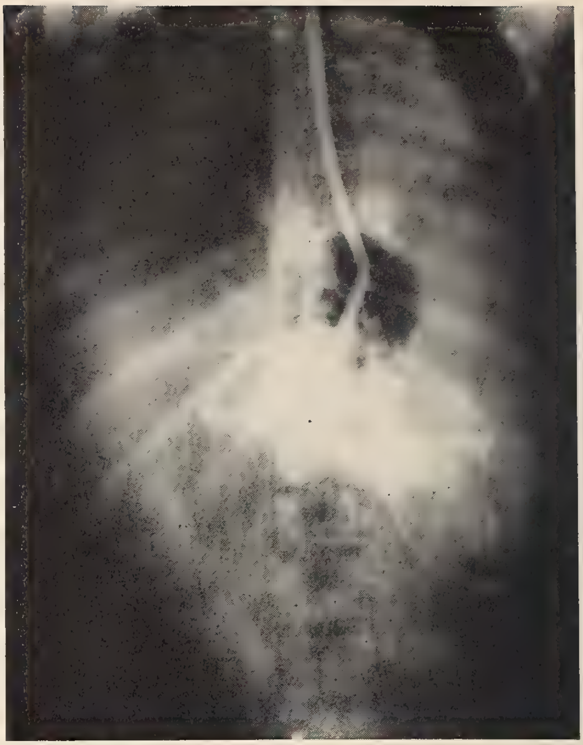

Figure 2.—The hepatogram in Case 1, showing no dye in the liver. The spleen is outlined. Interpretation: Complete extrahepatic obstruction. Operation: Splenorenal anastomosis.

The chest and abdomen were opened through a combined thoracoabdominal incision through the eighth interspace, the diaphragm was opened and the spleen was exposed. The spleen was approximately five times normal size. Splenectomy was carried out, the splenic vein being preserved. This vein was not thrombosed. The stomach was opened on the anterior surface and very large varices were observed. No attempt at ligation was made as no one bleeding point could be seen, and the stomach was closed. The pressure, measured in a tributary of the splenic vein, was 345 mm. of water. Splenorenal anastomosis was carried out. Following this procedure the pressure, determined in one of the tributaries of the splenic vein, was 210 mm. of water. The liver was normal in appearance and was not enlarged. The patient made an excellent postoperative recovery. The Levine tube was removed four days postoperatively. The hemoglobin content following operation was 13.1 gm. per 100 cc. and did not again decline. The sutures were removed on the seventh postoperative day and the wound was well-healed.

CASE 2. *Hemorrhages from a gastric varix within a hiatus hernia in a cirrhotic.*

A 50-year-old white man was admitted to the hospital on February 9. He had been vomiting blood every hour since awakening on the morning of entry. The week before entry the patient noted black stools several times daily.

The patient had been admitted to hospital thrice previously in the preceding four years for Laennec's cirrhosis, alcoholism, ascites, edema, avitaminosis and bleeding esophageal varices.

When examined the patient was sitting up in bed. Slight flaccidity of the face and gross tremor of the arms were noted. There were vascular spiders over the nose, left cheek and anterior chest and increased venous markings of the right anterior chest and right abdomen.

The patient continued to vomit blood and had tarry stools. He went into shock with blood pressure at 66/44 mm. of mercury on the evening of entry, and after two units of blood had been given he was taken to surgery. Through a left thoracoabdominal incision gastrotomy was performed and several actively bleeding varices were ligated with gut sutures in the region of the cardia of the stomach. There was believed to be a small hiatal hernia present also. No ulcers were noted. The spleen was removed. A specimen of the liver was taken for biopsy. The patient received six units of blood during operation.

Postoperatively, the patient had fever, subcutaneous emphysema and purulent exudate from the chest wound. Thoracentesis was carried out February 16 and 65 cc. of serosanguinous material was removed. It contained Gram-positive streptococci and staphylococci. Cultures were not reported. On February 18 dehiscence of the thoracic wound developed and a sucking sound could be heard. Left lower lobe pneumonia with three fluid levels and definite empyema were noted in an x-ray film of the chest. Penicillin, streptomycin and supportive intravenous therapy were given but the patient died on February 21.

At autopsy a leak was noted at the suture line in the gastrotomy wound and mediastinitis was present. The bleeding varix, which was thrombosed, was located in the gastric side within a small esophageal hiatal hernia. The liver was cirrhotic.

CASE 3. *Hemorrhage from a gastric varix. Mild cirrhosis.*

A 64-year-old male Negro prisoner entered the hospital in November 1953 because of massive hematemesis of a few hours' duration. At a previous entry a diagnosis of suspected cirrhosis of the liver had been made. No abnormalities were noted in a gastrointestinal series done at that time.

A presumptive diagnosis of bleeding ulcer was made and operation was done. Only slight pathologic changes were noted on biopsy of the liver. When the stomach was opened a small fountain of blood was seen pouring from one of several gastric varices. The varix was stitch ligatured.

After recovery the patient was sent back to prison, where he has had no further hemorrhage in 14 months.

CASE 4. *Repeated hemorrhages from varices. Cause undetermined.*

A 59-year-old white man entered the hospital in February 1955 for the ninth time with gastrointestinal bleeding. He had had this condition intermittently since 1947. In 1948 a gastric resection was done at another hospital, but no ulcer had been demonstrated. The patient first entered San Francisco Hospital in 1951. No blood dyscrasia had ever been demonstrated, although a diagnosis of erythroblastic anemia had been suggested. The spleen was large and esophageal varices had been demonstrated roentgenographically. On the eighth entry in September 1954 for severe hemorrhage, operation was performed. The liver did not appear grossly diseased. Portal pressures were within normal limits. The spleen was removed and the stomach opened. No marginal ulceration was found. There was some oozing from some small veins in the distal esophagus. These were stitched. In February 1955, after a drinking bout, the patient again vomited some blood, but on supportive therapy the hemorrhage stopped.

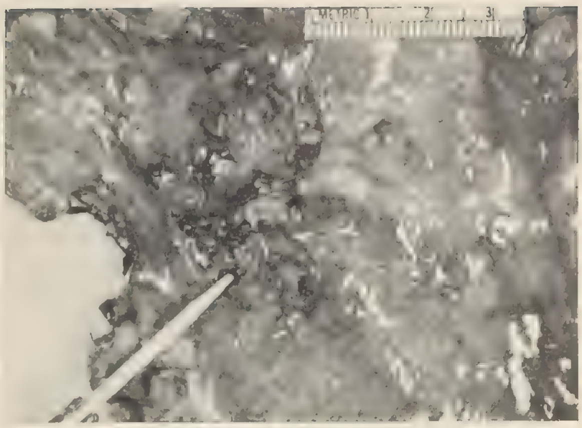

Figure 3.—The thrombosed varix in Case 2. The bleeding point was within a hiatal hernia. The sutured varix can be seen parallel to the gastroesophageal junction.

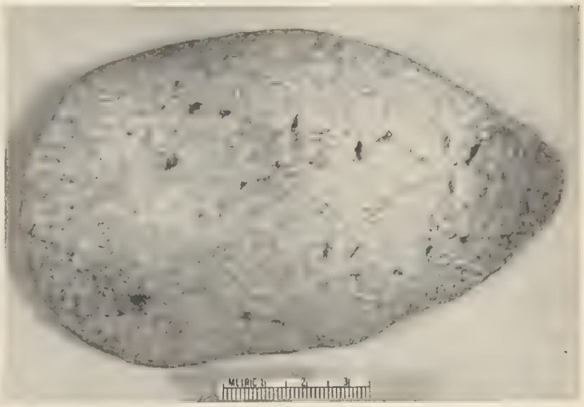

Figure 4.—The appearance of the liver in Case 2.

DISCUSSION

The small series of cases reported would suggest that direct attack on bleeding esophageal varices is feasible. There does not seem to be any doubt about this fact in the case of the patient with extrahepatic portal obstruction as the cause of esophageal varices. In these patients, splenorenal anastomosis should be done at the time of operation.

In the case of patients with cirrhosis of the liver, the problem is not quite so clear cut. It is obvious that ligation of one varix where several are present hardly can be expected to control the bleeding more than temporarily. Linton and Warren expressed the opinion that a portacaval anastomosis should be done after ligation, at some time in the postoperative period when the patient's condition has improved.

The author has not done portacaval anastomosis, for it is felt that lowering of the blood flow to the liver in the presence of cirrhosis is as damaging in these poor risk patients as any possible theoretical lowering of the pressure in the varices may be in the prevention of further hemorrhage. It is therefore of interest to note that the surviving patients in the series here reported, who have not had any form of portal decompression, seem to have about the same results as those reported by Linton and Warren who had portal decompression.

ADDENDUM

Since the presentation of this report, three of the surviving patients have bled again in small amounts. In one patient with large varices demonstrable by x-ray, portacaval anastomosis has been done.

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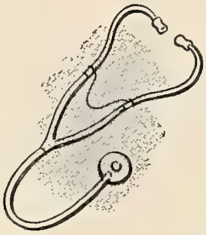

Needle Biopsy of the Kidneys

Studies of Two Cases of Lower Nephron Nephrosis Due to Toxic Solvents

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• *In two cases of "lower nephron nephrosis" or acute renal failure, needle biopsies of the kidney were performed. The first case developed in a 46-year-old woman following inhalation of vapors from an insecticide spray and a cleaning fluid. The second case was due to ingestion of carbon tetrachloride.*

Histologic study of the human kidney during toxic nephrosis showed changes confined mainly to the epithelium of the proximal tubules, confirmed the diagnosis, and illuminated the clinical course.

Needle biopsy of the kidney during acute renal failure did not influence the course of the disease unfavorably. It was easy, and entailed no complications.

Needle biopsy of kidneys may prove as informative and valuable as needle biopsies of the liver by aiding in the prognosis as well as in the diagnosis of various renal diseases.

THE PRESENT REPORT is an analysis of findings in the study of needle biopsies of the kidneys in two patients with acute toxic nephrosis probably caused by organic solvents. The specimens illuminated the course of the disease and removing them did not seem detrimental to the patient. A correlation of histologic with clinical and laboratory changes was made. More experience with similar instances may make evaluation easier.

Needle biopsy of the kidney was first reported in 1951,[3] and subsequently was shown to be a safe and valuable adjunct in the study of renal diseases.[6,7] Apparently few complications other than microscopic hematuria have been caused by the procedure, and the authors' experience with 12 patients corroborates this conclusion. Renal tissue is not always obtained in the needle; fat, connective tissue, muscle, and in one instance, liver tissue have been found. Despite the relative inaccuracy of the present technique, renal tissue is obtained frequently enough (in about 60 per cent of attempts) to warrant its continued use.

Before using this procedure in humans, caution dictated trial in animals. During the course of unpublished experiments on the renal circulation in guinea pigs, the Turkel needle for biopsies was used at operation to secure cores of renal tissue, and subsequent observation showed minimal bleeding. Later autopsies at varying intervals showed no serious damage to the kidneys.

These results encouraged the authors to perform needle biopsy of the kidney in patients with various renal diseases. Attention was directed early to the various forms of acute renal failure. As Swann and Merrill[8] pointed out in their exhaustive review on acute renal failure, anuria may occur in a variety of widely separated conditions, such as heat strokes, cholera, alkalosis and vomiting, trauma hemorrhage, intravascular hemolysis, shock, the crush syndrome, severe burns, and exposure to chemical nephrotoxins.

Oliver[5] postulated two common factors in the production of acute renal failure—renal tubular poisoning, and severe ischemia. These factors seem to adequately explain the clinical picture and the anatomic lesions. So far as could be determined there are no reports of serial biopsies of the kidney during the course of this disorder. All pathologic lesions described to date were seen either in experimental animals or in human kidneys obtained at autopsy. Considering how the use of needle biopsies of the liver has enriched the knowledge of hepatic disorders, an application of this procedure to certain renal diseases seemed warranted.

REPORTS OF CASES

CASE 1. A 46-year-old white woman was admitted to the hospital on October 14, 1953, with complaints of upper abdominal pain, backache, nausea and vomiting and fever. The patient had been well until four days previously when, having cleaned curtains with cleaning fluid* and sprayed plants in the garden with insecticide,† she felt weak, became nauseated, and collapsed. She then vomited, noticed a backache, and had fever. Four days later she sought relief at the hospital.

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*Chemical analysis of this material showed the presence of petroleum naphthas with some unidentified impurities. No carbon tetrachloride or benzenes were found.

†This insecticide contained the following chemicals: DDT 5 per cent, chloranane 0.03 per cent, betabutoxybutane 0.65 per cent; pyrethrum 0.04 per cent, ethanolbutoxide 0.85 per cent, methylated naphthalenes 10 per cent; essential oils 0.04 per cent, and petroleum distillates 83.06 per cent. (Taken from manufacturer's label.)

At the time of admittance the blood pressure was 140/100 mm. of mercury, the temperature 97.4° F., and the pulse rate 107. The abdomen was slightly distended, and the liver was palpable two fingerbreadths below the costal margin. The abdominal muscles were voluntarily contracted, and bilateral flank tenderness was present. A plain roentgenogram of the abdomen showed distention of the small and large bowel. The hemoglobin content of the blood was 14.1 gm. per 100 cc. The hematocrit was 46 per cent. Leukocytes numbered 14,100 per cu. mm. The blood urea nitrogen was 30 mg. per 100 cc. There were many leukocytes in the urine.

The patient was thought to have either acute gastroenteritis or obstruction of the small bowel and was managed accordingly. However, on the sixth day of illness, only 50 cc. urine, which was bloody, was passed in 12 hours. Cystoscopic examination and ureteral catheterization showed no urinary tract obstruction, and retrograde pyelograms were normal. Lavage of both renal pelves with sterile saline solution was carried out and a small amount of dark brown liquid was obtained. Microscopically, a few erythrocytes and many large red crystals which were thought to be heme pigment were seen.

A diagnosis of acute renal failure was made, and a needle biopsy of the right kidney was uneventfully performed approximately 12 hours after the onset of oliguria.

The patient was then treated on the basis of principles reported by Bull and associates.[1] She remained oliguric for 12 days; nausea, vomiting, and diarrhea persisted. The blood urea nitrogen and creatinine rose to high levels. Diuresis began after 12 days of oliguria, and progressed through polyuria to a normal urinary output. Another specimen was obtained for biopsy (from the left kidney) after the start of diuresis, and a third biopsy was performed (on the right kidney) at about the height of the polyuric phase. The patient made uneventful recovery, and when seen four months later was well.

DISCUSSION

When oliguria was first detected, obstructive urinary disease was excluded by cystoscopic examination and retrograde pyelography (as indicated by Harrison[2]). Corroboratory evidence of acute renal failure was obtained by the return of heme crystals through the ureteral catheters after gentle lavage of the renal pelves. The six-day delay in onset of oliguria was greater than is usual for patients exposed to nephrotoxic chemicals.

To maintain fluid balance, fluid intake was restricted immediately to about 800 cc. per day plus a quantity equal to the estimated loss from urine, vomitus and stool. Intravenous administration was necessary since nausea and vomiting were present. Thus, overhydration and subsequent pulmonary edema and cardiac failure were avoided in the oliguric phase (Chart 1).

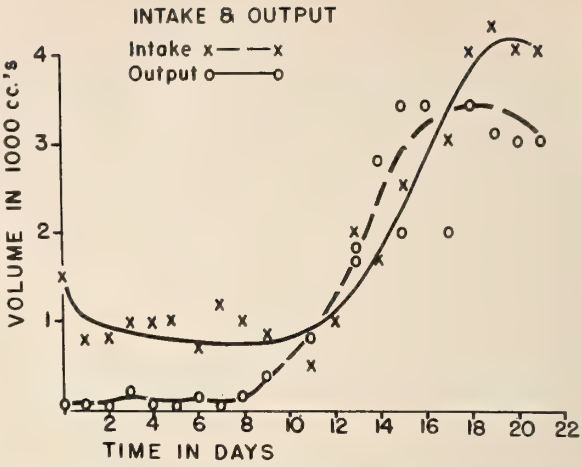

Chart 1 (Case 1).—Urinary output compared to total fluid intake. Fluids should be limited to 800 cc. more than the urine volume per 24 hours.

In polyuria, fluid balance involved replacement not only of the insensible loss and loss through vomiting and diarrhea, but also of water and electrolytes lost in the large volume of urine excreted by the recovering kidneys.

It was not until the twelfth day of the diuretic phase that nausea and vomiting ceased. Shortly thereafter the patient was able to take an adequate amount of liquids and intravenous administration was stopped.

The persistent nausea, vomiting, and diarrhea increased the problem of fluid and electrolyte management. Careful and frequent determination of the serum sodium content showed low values, around 130 mEq. per liter, throughout most of the illness. The chlorides measured between 75 and 90 mEq. per liter until the patient was well into the polyuric phase. Little sodium was lost in the urine in the oliguric phase and replacement was limited to the estimated loss from vomiting and diarrhea. Hypernatremia, which can produce not only pulmonary edema but also an edema of the kidney which would prolong the recovery period, was thus avoided. Chlorides were administered with the sodium in equivalent quantities. (Ordinarily in the oliguric phase water and glucose suffice, but in this patient the loss through the alimentary canal necessitated replacement.)

In the polyuric phase excess electrolyte and water loss occurred. It is believed that the regenerating tubular epithelium is functionally immature, and therefore unable to conserve essential elements for the body. The loss of sodium was estimated at approximately 100 mEq. per liter of urine. Replacement each day was guided by the previous day's losses, with one exception. Early in the diuretic phase a quantity of 5 per cent sodium chloride was administered intravenously in anticipation of

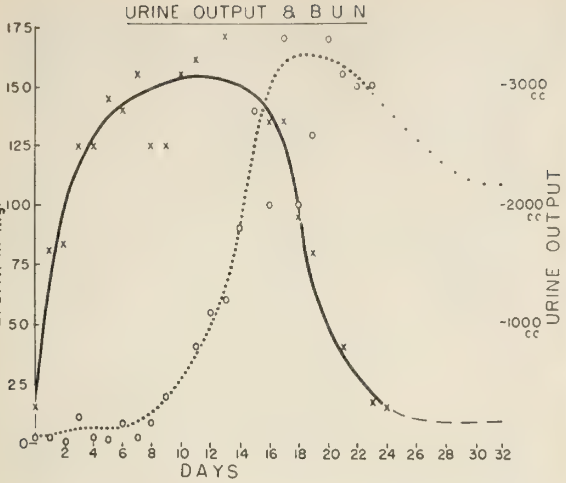

Chart 2 (Case 1).—Urinary output (dotted line) compared with blood urea nitrogen (solid line). As the urine output increased, the blood urea nitrogen (BUN) fell rapidly.

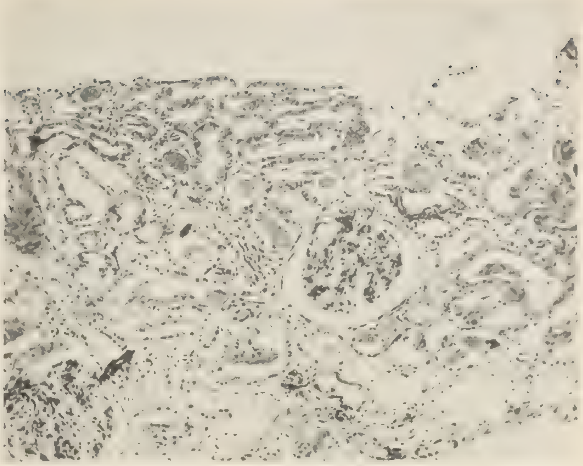

Figure 1 (Case 1).—Biopsy specimen (low power) on first day of anuria. Note necrosis and dilation of some of the tubules. Protein material is evident in many of the dilated tubules. The interstitium appears normal.

polyuria with its accompanying large losses of electrolytes. This decision proved to be an error in judgment, as acute pulmonary edema, which fortunately rapidly disappeared on digitalization and temporary restriction of salt, promptly developed. This experience provided a vivid illustration of the hazards of excess sodium in oliguria.

The potassium ion levels in the serum were normal in the oliguric phase. This is of some interest, as hyperkalemia usually occurs. Possibly hyperkalemia was prevented by the large losses of potassium through the gastrointestinal tract. Since this is a serious and sometimes fatal complication of oliguria, the possibility of reduction of serum potassium by artificially-induced diarrhea (perhaps by giving drugs) is intriguing and further pursuance of this question would be interesting.

In the polyuric phase the decrease of serum potassium was readily corrected by intravenous replacement. Since the kidney has little ability to conserve potassium even in homeostasis, excess loss occurred in the typically large volume of urine excreted in the polyuric phase.

The blood urea nitrogen initially rose rapidly, and became normal after polyuria occurred (Chart 2). There was also a corresponding rise and fall of serum creatinine.

The usual anemia associated with acute renal failure also developed. The hemoglobin dropped from 14.4 gm. per 100 cc. on admission to 7.4 gm. by the twenty-first day. Much investigation has been done regarding possible causes of this anemia. In a recent study on bilaterally nephrectomized rabbits, hemolysis was emphasized as the primary causative factor.[4] The concept of depression of erythropoiesis in renal insufficiency likewise has its proponents. It is possible that both mechanisms are factors in the production of the anemia of acute renal failure. However, since the anemia is usually well tolerated, it is believed that blood transfusions are not indicated unless critically low hemoglobin levels are reached late in the disease. In agreement with others, the authors fear the effects of increased extracellular volume in patients who are oliguric. Also, it has been demonstrated that transfused erythrocytes die and liberate into the serum of the recipient large quantities of potassium, which are undesirable in the oliguric phase. If blood is absolutely necessary, small quantities of packed red blood cells should be administered after diuresis has begun.

Correlation of pathologic changes with clinical and laboratory findings. Since acute renal failure seems to be divided into two phases, it was thought that securing specimens for biopsy at the beginning and end of oliguria and during the height of polyuria would provide the most information with minimum risk to the patient. Biopsy was performed on only one kidney at a time.

Biopsy on first day of oliguria. Immediately after it became known that obstruction was not the cause of oliguria in the present case, a biopsy specimen of the right kidney was obtained which represented the structure of the right kidney 12 hours after functional failure. The section was of renal cortex (Figure 1). The overall architecture was normal. Several glomeruli were present, one showing slight hyaline thickening of Bowman's capsule. Glomerular capillaries showed slight hyaline thickening of the basement membranes, but were not totally constricted as capillary lumens were clearly demonstrable. Scattered red cells were noted in the glomerular capillaries. The proximal convo-

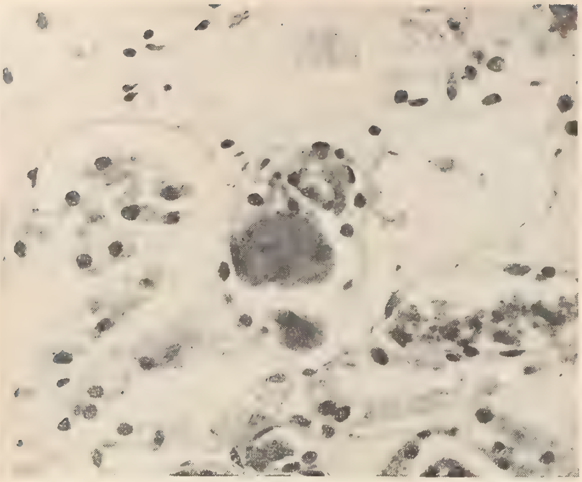

Figure 2 (Case 1).—Biopsy specimen (high power) on first day of anuria. A heme pigment cast in a distal tubule.

luted tubules were moderately dilated and the epithelial lining cells were frayed and focally sloughed into the tubule lumens. Occasional tubules were partially devoid of epithelial lining. The distal tubules showed less epithelial sloughing. The tubule lumens contained many well-preserved erythrocytes (possibly related to the biopsy procedure). Cellular debris admixed with amorphous granular material with the staining characteristics of hemoglobin was present in both proximal and distal tubules (Figure 2). The arterioles were slightly thickened. No inflammatory cells were seen, and no tubulovenous communications were identified.

A question that seemed pertinent was: How do these anatomic changes relate to the clinical picture of extreme oliguria?

As Oliver suggested, the failure to produce normal amounts of urine may be caused by a reduction in renal blood flow and glomerular filtration. (In the previously mentioned biopsy specimen in the present case, only scattered red blood cells were seen in the glomeruli.) In addition, both obstruction of the tubules by heme pigment casts and tubular rupture undoubtedly contribute to diminished urinary output. The proteinuria may come from the sloughed epithelium and pink-staining protein debris in the tubules. The elevation in blood urea nitrogen and creatinine is explained by failure to excrete these substances, since little or no urine is eliminated. The combined factors of tubular damage and focal ischemia thus seem to explain the clinical picture.

Biopsy immediately after diuresis began. The patient eliminated 1,800 cc. of urine in the 24 hours preceding the biopsy of the left kidney. Surprisingly, at biopsy the kidney did not appear much changed. Despite extreme tubular damage (Figure 3), some evidence of tubular regeneration and reconstruction was visible. Many tubules were still remarkably dilated. In one section a group of tubules showed epithelium with extremely clear cytoplasm and centripetal displacement of the nucleus (Figure 4). This condition of hydropic degeneration of tubular cells was produced experimentally in animals by intravenous injection of sucrose (Bell). Perhaps the intravenous glucose administered to the patient was partially responsible for this lesion.

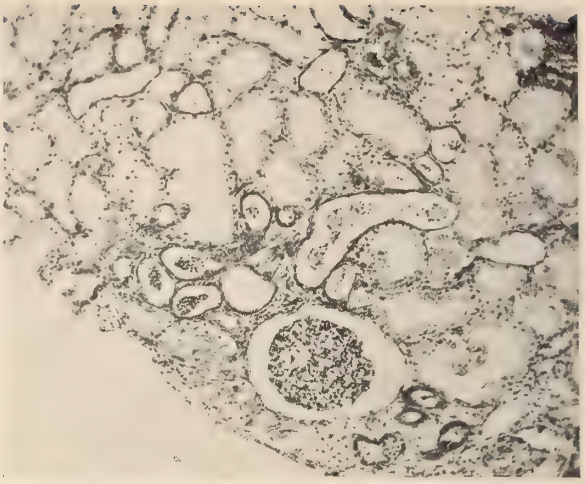

Figure 3 (Case 1).—Biopsy specimen (low power) at onset of diuresis. Dilation and necrosis of tubules still present, but some signs of regeneration evident.

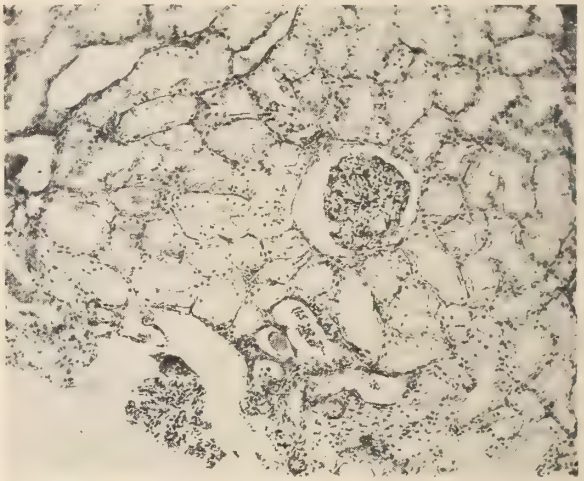

Figure 4 (Case 1).—Biopsy specimen (low power) at onset of diuresis. Many tubules near the glomerulus show hydropic changes. This may be due to the administration of intravenous glucose solution.

There were fewer heme pigment casts, and they appeared to be disintegrating, and mixed with mononuclear cells and polymorphonuclear leukocytes. The glomeruli in some areas contained erythrocytes, but in general showed partial constriction and possibly increased cellularity (Figure 5). The interstitium remained normal. (It is probable that the state of constriction of glomerular capillaries as re-

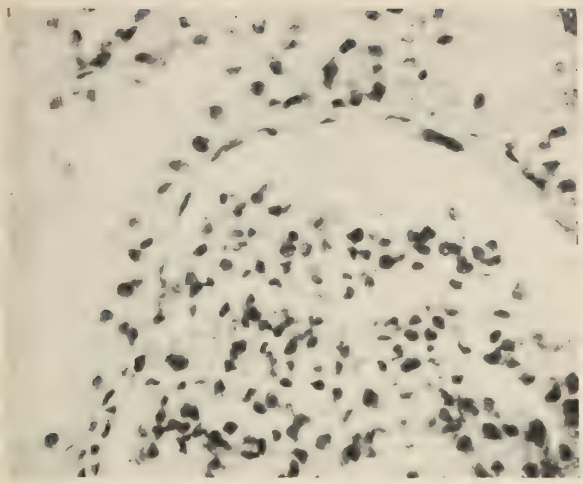

Figure 5 (Case 1).—Biopsy specimen (high power) at onset of diuresis, showing red blood cells in the glomerular capillaries, which are evidence of circulation through this structure.

vealed following the trauma of needle biopsy is not an accurate index of glomerular blood flow.)

Despite the initial appearance of destruction, careful examination of the specimen showed early regeneration and reconstitution of the tubules consistent with return of normal function. The presence of blood in the glomerular capillaries may have been evidence of circulation through these structures. Much of the pink-stained protein precipitate in the tubules had disappeared. This seemed to be evidence of passage of glomerular filtrate through the tubules.

Biopsy during the height of polyuric phase. The day preceding removal of a second specimen (from the right kidney) the patient eliminated 2,600 cc. of urine. This was the approximate peak of the polyuric phase.

Unfortunately this specimen was obtained from the renal medulla instead of cortex (Figure 6), and pelvic transitional epithelium was present (Figure 7). Cortical tissue was not present and comparison could not be made with the previous two biopsy specimens. Moderate amounts of eosinophilic intertubular ground substance were present. Collecting tubules were arranged in a regular fashion. Scattered neutrophilic polymorphonuclear cells appeared around the tubules along with an occasional eosinophil. Histologic preservation of tubular epithelium was excellent. Many tubules contained hemoglobin-colored casts mixed with nuclear and cellular debris and pyknotic polymorphonuclear leukocytes (Figure 8). In several areas the lining epithelium about these casts and elsewhere was irregular, serrated and partially desquamated. For the most part, however, the tubules were lined by a healthy appearing, single celled layer of cuboidal epithelium. There was little evidence of previous or present

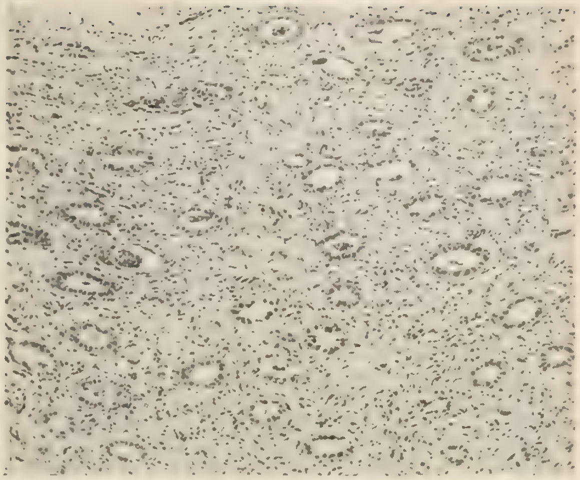

Figure 6 (Case 1).—Biopsy specimen (low power) at height of polyuria. Regenerating tubules are present.

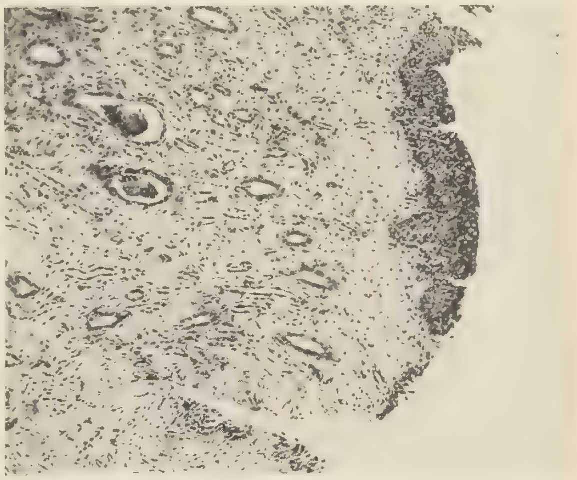

Figure 7 (Case 1).—Biopsy (low power) at height of polyuria. Transitional epithelium of renal pelvis included in biopsy; no evidence of urinary extravasation subsequently. Two tubules still contain casts.

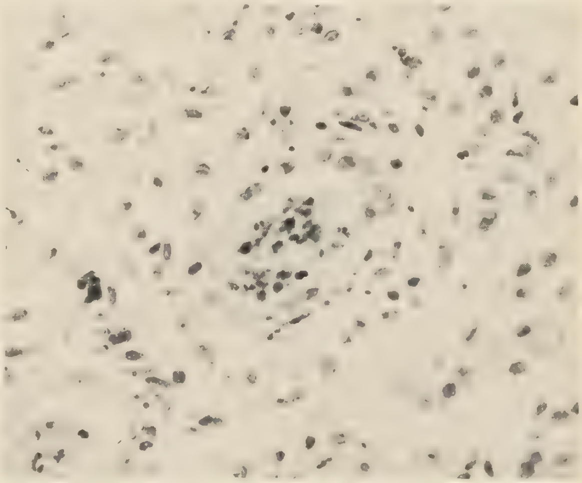

Figure 8 (Case 1).—Biopsy (high power) at height of polyuria. A disintegrating cast in a tubule.

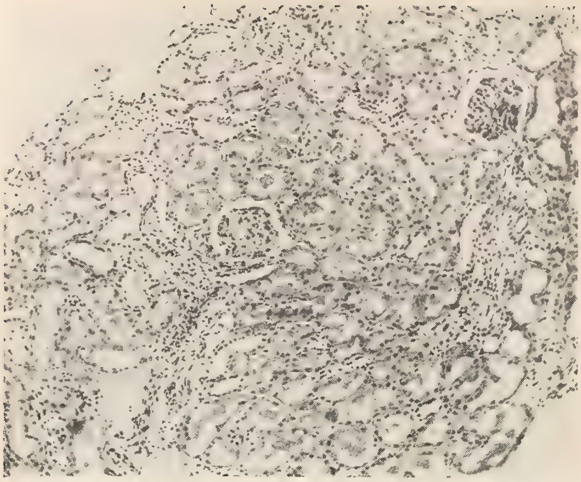

Figure 9 (Case 2).—Biopsy (low power) during diuresis in a patient with toxic nephrosis due to ingestion of carbon tetrachloride. Note patchy necrosis of some of the tubules. Clinical course and pathologic picture much more benign than Case 1.

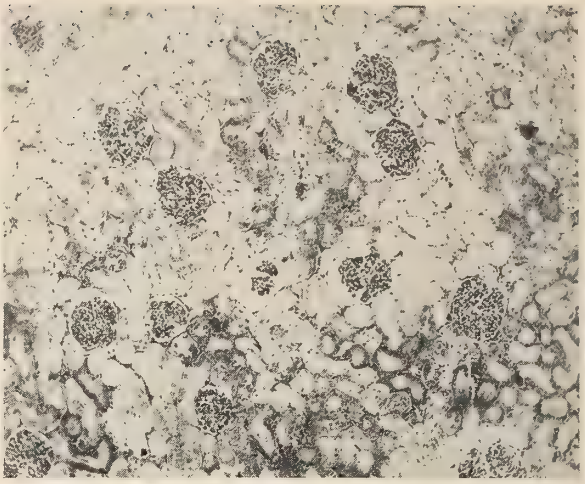

Figure 10.—Section of kidney of rat with experimental carbon tetrachloride poisoning (low power). Note the patchy tubular necrosis and normal glomeruli. (Courtesy of Dr. R. Jennings.)

injury to the epithelium of this portion of the nephron.

Oliver convincingly demonstrated anatomic reasons for profuse diuresis and failure to reabsorb essential electrolytes in the polyuric phase. By enzymatic stains of kidney sections from experimental animals, he showed an absence of mitochondrial rodlets in regenerating tubular epithelium. Mitochondria are thought to be concerned with the active transport (probably by phosphorylation) of essential substances. Thus the excessive loss of sodium, potassium, chloride, and perhaps water during the polyuric phase can all be explained by failure of the newly reconstructed tubular epithelium to adequately reabsorb these elements from the glomerular filtrate. Unfortunately, no conclusions can be drawn from this third biopsy specimen, as it only included renal medulla.

Case 2. *Study of histologic features of the kidney during toxic nephrosis.*

The Urologic Department was requested to perform needle biopsy of the kidney in a 62-year-old white man who became oliguric two days after drinking 60 cc. of carbon tetrachloride while under the influence of alcohol. The period of oliguria was short, and by the fifth day the patient was excreting 1,500 cc. of urine. Needle biopsy of the kidney was performed on the twelfth day of illness. Upon study of tissue from the right kidney it was noted that some of the glomeruli showed fusion between glomerular loops and focal pink hyaline thickening of the basement membranes (Figure 9). In an occasional glomerulus that was involved, there was a distinct increase in the number of endothelial cells in the loop involved. The efferent arterioles occasionally contained proteinaceous pink precipitate. Many of the distal and proximal convoluted tubules contained desquamated granular debris or pink hemogenous vacuolated protein precipitate. An occasional tubule showed some evidence of epithelial degenerative change, although most seemed fairly intact. Several clusters of convoluted tubules were dilated, and the epithelial lining thereof thinned. Minute atrophic scars were seen occasionally in the cortex. In such foci, atrophic tubules were observed. In some distal convoluted tubules and proximal portions of the collecting ducts there were luminal, bile-stained granular casts. Occasional epithelial cells in those tubules contained cytoplasmic golden yellow-green, granular material.

The kidney damage appeared less severe in this patient than it was in the patient in Case 1, and in no areas were the nuclei of the tubular epithelium absent. Moreover the extreme degree of tubular dilation noted in the first patient (which, according to Oliver, is indicative of obstruction lower down in the nephron) was not present. The bile-stained material was due to the coexisting hepatic damage.

Also, the clinical course was more benign than that of the first patient. This may indicate that needle biopsy of the kidney in acute renal failure has value as a prognostic aid.

No ill effects attended renal biopsy and the patient had rapid recovery.

Experimental toxic nephrosis. Through the courtesy of Dr. R. Jennings of Chicago, we had an opportunity to study his sections of the kidneys of rats poisoned by carbon tetrachloride. While this lesion is not identical with the human lesion in toxic nephrosis, many points of similarity are present. Widespread evidence of proximal tubular necrosis was seen, with relatively intact distal tubules and glomeruli. The blood vessels and interstitium were not noteworthy (Figure 10). After nephrotoxic chemical poisoning, one would expect diffuse widespread lesions. Oliver's theory of generalized tubular toxicity plus focal ischemia seems an adequate explanation of the observed focal lesions. He believed that only a vascular component can explain scattered lesions in the kidney after systemic administration of a nephrotoxic agent.

The similarity of this experimental lesion to the microscopic findings in the two cases reported herein seems to confirm nephrotoxic agents as the cause of renal failure.

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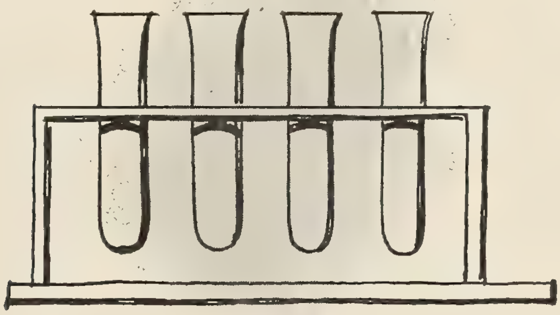

Cancer of the Liver

Needle Biopsy as a Means of Detection

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• *Needle biopsy of the liver was done in 25 patients suspected of having hepatic cancer. The results of biopsy were "positive" in 19 cases, and cancer later was proven to be absent in the livers of four of the other six. Multiple biopsy increased the incidence of positive findings. The procedure obviously provides no false-positive tests. It is recommended for the detection of hepatic neoplasm in patients who would otherwise require surgical exploration for diagnosis.*

NEEDLE BIOPSY is now established as a practical way to discover cancer in the liver. However, as yet too few physicians realize how frequently the suspected cancer is found and how easily the biopsy is done. The procedure entails a risk which is not negligible but becomes minimal when certain precautions are followed routinely.[2, 6]

In 111 patients with proven secondary or primary hepatic neoplasms, Ward, Schiff, Young and Gall[10] were able to demonstrate tumors in 82 by needle biopsy. Working in a cancer hospital, Bowden and Kravitz[1] found neoplastic liver disease in 42 of 76 patients with suspected hepatic metastasis. Sixteen of the remainder were later shown to be free of liver involvement, and in 18 cases the result of biopsy was falsely negative. Multiple biopsies in the same patient were employed rarely.

METHODS

In the series here reported, 36 liver biopsies were done in 25 patients, 10 men and 15 women, with clinically suspected but previously unproven hepatic neoplasms. The material was obtained with a Vim-Silverman needle. The age range of the patients was 39 to 82 years and the median age was 64. Twenty-two of the subjects had enlarged livers—in 16 cases they were arbitrarily considered "markedly" enlarged. In ten cases the liver was nodular. Three patients were icteric. The site of biopsy was subcostal in 19 cases, intercostal in three and both in three. One specimen was removed from each of 14 patients; two specimens from each of 11. No complications were encountered. Primary tumor sites are listed in Table 1.

RESULTS

Liver biopsy revealed neoplasm in 19 of the 25 cases in which there was clinical suspicion of cancer. Absence of hepatic involvement was proved in four of the remaining six patients, by laparotomy in two instances, by postmortem examination in one and by the subsequent course in one. In one patient, widespread melanosarcoma of the liver, primary in an eye, was not discovered by single biopsy. It is probable that a second biopsy would have been positive in that patient. In a patient with Hodgkin's disease without hepatomegaly, a single needle biopsy did not reveal the neoplasm. However, at autopsy, seven months later, the only evidence of liver involvement was one subcapsular metastatic lesion 3 mm. in diameter. In the other two patients without evidence of hepatomegaly on physical examination the liver was spared. Biopsies were positive in all of those with nodular livers and in two of the three icteric patients; the other patient with jaundice had a bile duct carcinoma that did not involve the liver. There were positive biopsy findings in all of the 11 patients in whom two biopsies were taken, but both were positive in only eight. In two of the three cases in which one specimen was intercostal and one subcostal, only one of the specimens was positive for carcinoma.

TABLE 1.—*Site of primary carcinoma in patients with liver involvement*

Colon	3
Liver	2
Stomach	2
Bile duct	1
Breast	1
Eye	1
Uterus	1
Hodgkin's	1
Undetermined	9
Total	21

Submitted June 6, 1955.

From the San Mateo Clinic.

DISCUSSION

Antemortem detection of hepatic metastasis by means of liver function tests is usually not reliable, although results may be suggestive.[7] Interest in ways of establishing the presence of tumor involving the liver has increased since the recent demonstration of a method using radioactive iodinated human serum albumin.[3, 8, 9, 11] In that method, gamma radiation emitted by hepatic tumor foci is measured with a scintillation counter. Although this method probably provides fewer false-negative results than liver biopsy, ascites, acute hepatitis and other conditions may be associated with false-positive findings. If resection of a primary tumor is to be foregone on the basis of evidence of a metastatic lesion in the liver, tests for the latter must provide no false-positive results. Although liver biopsy sometimes gives false-negative results, there can be no false-positive findings by this method.

The high incidence of positive liver biopsies is rather surprising. The usual concept of hepatic metastasis occurring only in widely separated nodules is not substantiated by the microscopic biopsy findings. Hoffbauer stated: "In the presence of metastatic carcinoma in the liver the biopsy, performed at the bedside, is of value only if the needle happens to strike a metastatic nodule."[4] This is of course true, but it has been shown that the needle does happen to strike metastatic foci with remarkable frequency. The incidence of positive results is higher if specimens are taken from more than one area. In the presence of hepatomegaly it is now the authors' practice to obtain two specimens when searching for malignant cells.

A question that arises is whether all patients with primary cancer of a kind that is known frequently to metastasize early to the liver, such as carcinoma involving the gastrointestinal tract, should routinely have preoperative liver biopsy. Unless a palliative surgical procedure is indicated, a positive specimen would preclude the need for laparotomy, with an attendant saving in discomfort, expense, hospital days and surgeons' time. Certainly in such situations liver biopsy appears indicated if the liver is enlarged and nodular. In the absence of enlargement, the indications are not yet clear. In this connection it is noteworthy that in a recent autopsy series, of 175 cases with hepatic neoplastic metastases, 36 per cent were not suspected of having liver involvement on the basis of antemortem abdominal palpation.[5]

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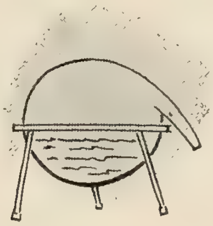

Extensive Burns in Children

Treatment of the Early Phase

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• The water, electrolyte and colloid losses and shifts which occur after a severe burning are complex, and variable from patient to patient. No available clinical method allows for accurate prediction of the volume and composition of the fluid losses. The method here described assumes that parenteral therapy which produces a normal urinary output and maintains the child free of signs and symptoms of shock is good therapy and at least approximates his needs. On the whole this assumption has been verified by clinical experience.

Once again it is necessary to stress the importance of treatment that anticipates needs rather than treatment which comes after unmet needs are obvious.

Methods used to assess and treat burned adults need modification before application to infants and children.

A SEVERE BURN inevitably produces remarkable disturbances in the homeostatic mechanisms necessary to life. Rapid and inordinate losses and shifts of water, electrolytes and colloid material occur; and there may be considerable destruction of erythrocytes when the burn is deep.[5] These pathologic processes lead to shock and hypoxia and to all of the physiological aberrations secondary to shock and hypoxia. It is of utmost importance to recognize that the magnitude of the pathologic changes cannot be altered by mechanical or pharmacological means.[2, 6]

Although there is a difference in tolerance by different persons to burns of any given depth and extent, infants and children in general develop shock from burns of a depth and extent that ordinarily do not produce pronounced systemic effects in young, otherwise healthy, adults. At any time during childhood, a burn of over 12 per cent[7] of the body surface is likely to lead to shock, and in the first four to five years of life a burn of 8 per cent[1] or more of the body surface may be serious. In general, the younger the child the less well is a burn of any given depth and extent tolerated. Unfortunately, the general condition of the child shortly after the burning is likely to be misleading and overly reassuring. This apparent well-being may cause omission of measures needed to prevent or modify subsequent shock which then comes as a surprise to persons unfamiliar with the care of burned children. The later therapy is started, the less are the chances for success, for by the time shock has occurred, the losses of fluid, electrolyte and colloid already are incredibly large. Therefore it is necessary to anticipate the child's needs, since it may not be possible to catch up once shock has occurred.

All currently used methods of supportive therapy for burned patients require estimation of the extent and depth of the burn. This is not so simple as it might seem, particularly in the early phase of the burn, and serious errors of overestimation and underestimation occur. Judgment of the depth of a burn is more difficult than judgment of its extent, and the usual tendency is to underestimate depth. Although it is not the purpose of this paper to discuss local treatment of burns, it should be pointed out that with "open" or "exposure" treatment[7] the depth and extent of the burn can be reevaluated continuously and treatment changed accordingly; whereas, when bandages are used, treatment has to be based on the original and often faulty estimations. The "rules of nines"[7] which divide the body into areas representing 9 per cent of the surface or multiples thereof are most useful for determining roughly the extent of burns in adults. In using this method for children, however, serious errors arise, since a child has much more of his skin on the head and much less on the legs than does an adult. Therefore, the author prefers the data shown in Chart 1 as a basis for estimation of the extent of burns in children.[4]

The plan of treatment to be described is in no sense original, being based on the suggestions of Cope and Moore,[2] and having been used extensively in children by Alway.[1] The plan is simple and is based on clinical observations rather than on laboratory procedures that often are not available.

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CHART 1.—*Surface area calculation (modified from Lund and Browder[1])*

At all ages:

Neck	2 %	One foot	3.5%
One arm	4 %	Trunk	26 %
One forearm	3 %	Genitals	1 %
One hand	2.5%	One buttock	2.5%

Areas that change with age:

	At birth Pct.	At 1 yr. Pct.	At 5 yr. Pct.	At 10 yr. Pct.	At 15 yr. Pct.	Adult Pct.
Head	19	17	13	11	9	7
Thigh	5.5	6.5	8	8.5	9	9.5
Leg	5	5	5.5	6	6.5	7

GENERAL TREATMENT

A catheter for intravenous infusion should be inserted at the earliest possible moment and before local treatment is started. A "cut down" and the secure placement of the largest catheter that the vein will hold saves costly later delays.

Since the plan of treatment is based largely on observations of urinary output, an indwelling catheter in the urinary bladder is essential so that output can be measured precisely. Without an indwelling catheter, retention or incontinence or both will destroy the most useful guide to the modification of treatment.

Placing the patient in an oxygen tent not only supplies additional oxygen to help combat hypoxia, but some patients seem to be more comfortable in a cooled tent, especially during hot weather.

Sedative and analgesic drugs usually are not needed in large quantities, and their depressing effects are undesirable. Surprisingly, most burned children seem little distressed, once handling has ceased. Restlessness and the appearance of discomfort often are signs of impending or actual shock and hypoxia. These conditions respond to antishock measures and not to opiates. Routine orders for opiates should not be permitted, and no depressing drugs should be given unless the physician is satisfied that pain rather than shock is the cause of a child's symptoms.

Adequate tetanus prophylaxis must be given.

Antibiotics in full therapeutic doses should be started early. Although in extensive burns some infection of the burned area almost always occurs, antibiotics can protect the patient against septicemia and against beta-hemolytic streptococcal infections of the skin which may cause failure of skin grafting[3] and/or nephritis.

Nothing should be given by mouth in the first 24 hours after the burning. Oral feeding often leads to vomiting and diarrhea which complicate the fluid and electrolyte problems. Gastric dilatation with respiratory embarrassment has been noted in cases in which oral feedings were given in the first 24 hours. The thirst of which some patients complain in the early period is a sign of impending shock[7] and is not a reason for offering oral fluids but a reason for intensifying parenteral treatment.

CHART 2.—*Plan for parenteral therapy*

	Per Cent of Total Given in Each 12-Hour Period:			
	1st	2nd	3rd	4th
(a) *Loss to extracellular space (edema):*				
For maximal burn allow amount of fluid equal to: Under 3 years of age, 15 per cent of body weight; over 3 years, 10 per cent of body weight. For less than maximal burn allow amount of fluid equal to: Under 3 years of age, 8 per cent of body weight; over 3 years, 5 per cent of body weight. Whole blood, plasma, serum albumin, Ringer's lactate (no dextrose in water)	50	25	12.5	12.5
(b) *Surface loss:*				
Allow 50 ml. per 1 per cent burn/48 hours. Plasma, serum albumin, Ringer's lactate (no dextrose in water)	25	25	25	25
(c) *Maintenance:*				
24-hour requirement ×2. 30 per cent Ringer's lactate, 70 per cent of 5 per cent dextrose in water	25	25	25	25

The vital signs should be watched closely and a detailed record of output and the composition and volume of fluid intake must be made.

Plan for Parenteral Therapy

Although it is known that the shifts and losses of fluids, electrolytes and colloid are great, no simple clinical means of estimating these shifts and losses for individual patients are available. Hence no formula can be expected to anticipate accurately the needs of all patients. Nevertheless, the following fluid plan is useful in estimating needs in the first 48 hours after a severe burning. It is convenient to plan for four 12-hour periods.

Losses to the expanding extracellular space—edema—((*a*) in Chart 2) may cause this space to expand 50 per cent,[2] which would be equal to 15 per cent of body weight in the infant and small child or 10 per cent of body weight in an older child. Expansion of the extracellular space is most rapid in the first 12 hours and usually is complete in 24 to 48 hours, when edema reaches its height. For this reason, half of the fluid calculated for expansion of the extracellular space is given in the first 12 hours and one-fourth in the next 12 hours. In this respect "first 12 hours" or "first 24 hours" means first 12 hours or first 24 hours after the burning, not after the beginning of treatment. If many hours have elapsed between the burning and the beginning of treatment, every effort should be made to get in the fluids calculated for the first 12 or first 24 hours in the time remaining, and careful watch should be kept for signs of cardiac failure. For calculating the total quantity of fluid for losses to the extracellular space, it should be considered that a burn of 30 per cent or over probably will cause maximal possible expansion of the extracellular space, and an amount of fluid equal to 10 to 15 per cent of the body weight should be allotted. If the burn is under 30 per cent, an amount of fluid equal to 5 to 8 per cent of body weight should be allotted. If the burn is partial thickness, this fluid can be given as 50 per cent plasma (or serum albumin solution to avoid the risk of hepatitis) and 50 per cent balanced electrolyte solution (Ringer's lactate). If there is known or presumed full thickness burn, whole blood should be given in the first 24 hours in amounts equal to one-third to one-half the fluid calculated for extracellular space expansion. The hematocrit is not a very useful guide in gauging the need for blood. The need for whole blood in deep burns cannot be overemphasized, for regardless of what the hematocrit shows, the total erythrocyte mass is decreased[5] and the patient's oxygen-carrying capacity is diminished. A burned child will tolerate some extra blood better than a decreased erythrocyte mass.

Losses from the surface begin immediately and continue at a more or less even rate ((*b*) in Chart 2). For this loss, 50 ml. of fluid for each 1 per cent of area burned should be allowed in the first 48 hours; and one-fourth of the total can be given in each 12-hour period. These fluids should be given as 50 per cent colloid and 50 per cent balanced electrolyte solution. Since the relationship between per cent of burn and fluid requirement is not strictly parallel, the surface loss of fluid from burns of over 30 per cent should be calculated as though only 30 per cent had been burned.

Maintenance fluids ((*c*) in Chart 2) for 48 hours are calculated in the usual fashion, utilizing age or weight or surface area. Maintenance fluids are the fluids the child would need if he were not sick at all. These can be given as a solution containing 30 per cent Ringer's lactate and 70 per cent of 5 per cent dextrose in water with liberal amounts of vitamins B complex and C added. The maintenance fluids should be given at an even rate of one-fourth of the total in each 12-hour period. Chart 3 gives a convenient method of calculation of total maintenance fluid needs.

After the amounts of fluid for each need are calculated, they are totaled and in so far as the various fluids are compatible with each other, they are given simultaneously; or, if incompatible, they are given alternately, with blood and colloid solutions having priority.

Normal saline solution should not be used for any part of the treatment, since its high chloride content will intensify the metabolic acidosis that is likely to be present. In no circumstances can dextrose in water be considered as satisfactory replacement for surface losses or expansion of extracellular fluid.

CHART 3.—*Maintenance fluids per 24 hours for children (double quantities for 48 hours)*

Using Body Weight:

Allow 100 ml./kilo./24 hr. at 1 year.

Subtract 10 ml./kilo./24 hr. for each 3 years of additional age (e.g., 90 ml./kilo./24 hr. for 4 years. 80 ml./kilo./24 hr. for 7 years, etc.).

Using Age:

Allow 1,000 ml. total/24 hr. at 1 year.

Add 100 ml./year/24 hr. for each additional year (e.g., 1,100 ml. at 2 years; 1,200 ml. at 3 years, etc.).

Modification of Treatment in Accordance with Urinary Output

Once treatment has started, changes are made in accordance with urinary volume. A urine volume of 30 ml. an hour indicates that fluid replacement is satisfactory. If urinary volume rises sharply above 50 ml. an hour, the rate of fluid administration must be slowed. Urinary volume below 30 ml. an hour calls for a more rapid rate of fluid administration, since oliguria in the first 48 hours after burning almost always is due to underestimation of fluid needs. If there is a question as to whether oliguria is due to inadequate fluid administration or to a renal lesion, the infusion of 15 to 20 ml. of 5 per cent dextrose in water per kilogram of body weight in 45 to 60 minutes will produce a rapid increase in urinary output if no renal lesion exists, and demonstrate that the oliguria is due to inadequate therapy. It must be pointed out, however, that if treatment has not been started until after shock has occurred, urine output may not increase for many hours after the beginning of treatment. In this situation, treatment should be pushed, since the patient will die if fluid is withheld in the faulty belief that renal insufficiency exists. The basic plan is flexible and is easily stretched out or speeded up.

Edema

Rapid development of edema in the burned area and in the unburned area is to be expected if the patient survives. It is not due to overtreatment but is a part of the pathologic process initiated by the burning. The infused fluids do not cause the edema, but rather give the patient adequate materials to lose and yet maintain blood volume.

Courses After 48 Hours

Beginning at 48 hours, either of two courses may be noted: (1) if the burn is mostly partial thickness, dramatic diuresis often occurs, with rapid disappearance of edema. If this occurs, the patient's fluid intake must be curtailed, but not the electrolyte intake, for electrolytes may be washed out in large quantity. Usually by this time it is possible for the child to meet his needs by oral feeding. (2) If the burn is largely full thickness, loss of edema is more gradual and there may be continuing need for high fluid intake if urine volume is to be maintained.

There are numerous exceptions and only close observation will determine the child's needs. It is at this point that the determination of serum electrolytes may be of great value in plotting further treatment.

Potassium Administration

Extra potassium is not needed in the first 48 hours, since it is being released in large quantities from damaged tissues. In fact, hyperkalemia may exist early, and potassium administration in the early period should be limited to that which is unavoidable if blood and plasma are to be used. After 48 hours, however, potassium excretion becomes great and hypokalemia will develop predictably unless extra potassium is given. When urine output is satisfactory, children may receive safely 3 milliequivalents of potassium per kilogram of body weight per 24 hours by vein and two to three times this amount by mouth.

EXPERIENCE

During a recent period of 34 months, 44 burned children were hospitalized on the Stanford Pediatric Service at the San Francisco Hospital. The burns have ranged in extent from 2 per cent to 70 per cent of the body surface. About one-third of the total number of children required supportive treatment of the type described. No deaths occurred. All of the children have been discharged from the hospital, although naturally some still are receiving plastic and rehabilitative therapy.

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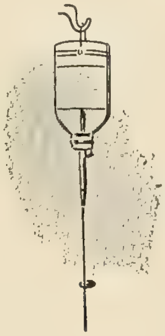

Injuries of the Fingers and Hands

A Review of Cases from the Standpoint of Compensation

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• *Review of records in cases of injury to the hand that come before the California Industrial Accident Commission indicate that:*

1. Primary closure at a suitable level in finger amputations is often preferable to plastic repair.

2. Complications incident to plastic repair in minor injuries frequently increase disability and cost to employer.

3. Tendon injury resulting from strain is a frequently overlooked cause of disability.

EACH YEAR more than 30,000 cases of injury come before the California Industrial Accident Commission staff—about 5 per cent of the more than 600,000 industrial injuries reported annually by California physicians. Those observed by the commission are the more serious disabling injuries, and those in which the question of compensation is contentious. In 8,000 of the 30,000 cases a year the injury is to an upper extremity—to the hand in the great majority.

In these cases commission staff physicians have had opportunity to see and to evaluate the final results of many types of treatment. While the commission has only limited facilities for statistical study, certain types of disability occur so consistently that the case histories come to assume a very definite pattern.

The present communication deals with a somewhat miscellaneous group of conditions in which the resulting disability seems unnecessarily high.

Finger Amputations

Amputation of a finger is relatively common and the final disability is often out of proportion to the loss.

The medical literature stresses conservatism in amputations of the fingers. It is repeatedly urged that finger length should not be sacrificed to facilitate primary closure and that length be preserved by the use of grafts and flaps.[3] The attitude is fostered that the resection of bone for the purpose of making a primary closure is almost a cardinal sin.

Apparently as a result of this teaching, many surgeons it seems are reluctant to resect enough bone to get an adequate amputation flap.

A workman's finger must be rugged enough to withstand considerable abuse. He must be able to maintain a firm grip on hard, heavy irregular objects. He must be able to thrust his hand into cramped inaccessible places without fear of bumping an exquisitely tender stump. In many of the cases that come before the commission the stumps are entirely unsuitable for this kind of use. In many cases the resection of a little more bone would have given the patient a rugged serviceable stump with a substantial reduction of permanent disability. Often in the cases reviewed, grafts have been used to avoid sacrificing length of finger. While grafts certainly preserve function in badly mutilated hands, the author feels that perhaps there is too great a tendency to use them for the sole purpose of saving a minimal length of bone.

Grafted fingers may look better but they are frequently unsuitable for laboring work. Loss of tactile sense is common and often the stump is very tender.

In order to cover exposed bone it is usually necessary to use a flap. This always results in more or less prolonged immobilization, and stiffness of the joints develops surprisingly often after this form of treatment, not only in the injured fingers but in the uninjured ones as well. It should be noted in this regard, therefore, that mere conservation of finger length is not necessarily consistent with conservation of function.

Plastic procedures certainly have their place and in many cases have made a hand usable. Before resorting to the use of a flap, however, the dangers and disadvantages should be carefully considered. It should not be forgotten that the resection of a minimal length of bone often allows for a good functional stump.

Fibrosis

Limitation of motion due to fibrosis is a frequent cause of disability. Although most physicians are aware of the danger of fibrosis in hand injuries, it is sometimes forgotten how quickly and insidiously it can develop.

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Immobilization in the presence of edema leads to fibrosis. The fibrin of serofibrinous exudates is deposited on gliding surfaces and around joints. The tissues are glued together.[9] Immobilization in hand cases is therefore always hazardous. Yet during the acute stage following injury the inflamed parts must have support and rest; otherwise increased tissue reaction with attendant edema may result. Prevention of fibrosis requires a very delicate balancing of rest and early mobilization. Elevation of the hand may help combat edema.

While the prevention of fibrosis in the injured parts may at times be impossible, much can be done to prevent stiffness from developing in the uninjured joints. Every uninjured joint of the extremity must be vigorously and continuously mobilized. It has been demonstrated many times that the patient will not do this on his own initiative. His natural instinct is to protect the extremity and he usually guards it well. Someone else must see to it that he puts every uninjured joint of the extremity through its complete range of motion every day. Time and again the Industrial Accident Commission reviews cases in which the surgeon apparently felt that his responsibility ended with instructions to the patient as to what to do.

Certain persons regardless of age are particularly prone to fibrosis. Who these persons are cannot be told in advance. By maintaining the hand in a position of function, however, it is possible to minimize the disability if it does occur. The position of function is with the wrist in 25 or 30 degrees of dorsiflexion and about 10 degrees of ulnar deviation, with the fingers partly flexed and with the thumb approximating the fingers. Then if stiffness occurs, the hand will be of some use even if motion is extremely limited.

Once fibrosis is present, long continued voluntary motion seems to be the treatment of choice. Gentle passive motion in the form of traction has a place. Vigorous passive motion probably does more harm than good.

Manipulation under anesthesia is practiced by many surgeons, who seem to feel that it is useful at times. Watson-Jones,[9] however, expressed the opinion that it is almost never indicated. Bunnell[1] said that forcing a stiff finger under anesthesia is dangerous and usually does harm. Results observed in cases before the Industrial Accident Commission have convinced the author of the uselessness of manipulation under anesthesia.

Loss of Grasping Power

Loss of grasping power is a ratable disability. Dynamometer readings are required in commission cases in which degree of disability is to be determined. There is no type of dynamometer that will measure exactly the amount of loss of grasping power. Dynamometer readings do not always reflect the actual loss resulting from the injury. If the examiner feels that they do not, he should say so and give an estimate, in percentage, of what he feels is the actual loss. The examiner should substantiate his opinion in every way possible.

The circumference of arm and forearm of both injured and uninjured side should always be reported. It has been noted that in persons doing active physical work, the circumference of the major arm and forearm is consistently greater than in the minor. Equal size usually means atrophy. It is usually arbitrarily assumed in cases before the commission that the grasping power in the major hand is 10 per cent greater than the minor.

Loss of grip can be caused by a number of things, among them amputation, limited motion of joints, tenosynovitis, nerve injury and pain. Evaluation of loss of grip is one of the most difficult problems of industrial medicine. It must be based on a number of factors, of which the loss shown by the dynamometer readings is only one. To be considered in every evaluation are the type of the original injury, the kind and duration of treatment, the complications, the time that has elapsed since injury, the objective findings, and pain. Loss of grip which is the result of pain is just as compensable in California as loss from amputation.

A reasonably accurate estimate of the loss which has resulted from amputation, from limitation of motion or from other cause requires a great deal of experience and judgment. Any preexisting loss of grip in the injured hand must be considered. As ratings are based on a comparison with the uninjured side, any preexisting loss on that side must also be considered.

Attempts to detect lack of cooperation by observing that the forearm muscles do not tighten or that the knuckles do not blanch, or any other such indication, are ordinarily useless. If there is no ability to grip, then there can be no tightening of the muscles and no blanching. The use of the blood pressure cuff in the taking of grip measurements is not acceptable, for by using different basal starting pressures almost any kind of a reading can be obtained.

It should be remembered that firm fixation of the wrist, and to some extent of the elbow, is necessary before a normal grip can be made. An example frequently seen is that of radial nerve injury. In that condition, while the flexor mechanism is undamaged, the paralysis of the extensors results in an almost total loss of grip.

The question of grip is one of the most difficult of the commission's problems. A subcommittee under sponsorship of the California Medical Association has been set up to study the problem.

Tenosynovitis

Among the conditions frequently overlooked by industrial physicians are injuries to tendons and tendon sheaths brought on by stress or strain. The extensor tendons are most frequently involved. The extensors take part in any gripping action and, being weaker than the flexors, seem to be more subject to injury.

Tenosynovitis often occurs in locations in which a tendon passes through a sheath or tunnel under considerable strain. Increased pressure and friction bring on inflammatory changes and edema. In later stages a constrictive process may result. A common location is at the lower end of the radius where the abductor pollicis longus and the extensor pollicis brevis pass over the bone (De Quervain's disease). This condition occasionally results from roughness following fracture and it is frequently overlooked. Usually the condition is the result of strenuous gripping and pinching action.

The history is that of strenuous gripping or pinching from such activities as wringing out clothes, holding material up to a buffing wheel or difficult folding operations. A similar condition sometimes affects the ulnar side of the hand in typists who continually push the shift key with the little finger. The author once observed more than 50 cases at one time among a group of elderly women who had been recently put to work tying up bundles of electrical assemblies with heavy cord. The patients were not used to manual work of any kind and the job required very strenuous gripping all day long. The condition is much more frequent in women than in men. Diagnosis can usually be made by forced passive ulnar deviation during which the patient clutches his thumb within a tight fist[6] (Finkelstein test). The pain[7] in a positive test is quite severe and the patient's reaction is characteristic, and seldom simulated by a malingerer.

Tendon disorders may arise in locations where there are no sheaths. Excessive muscular fatigue causes reduction of glycogen to lactic acid. The lactic acid apparently trails down into the tendon with a lowering of pH and inflammatory changes with edema. Experiments have shown that actual necrosis of muscle fiber takes place. A lessening of the contractability of the muscle results. The entire process is a result of fatigue which may be due to repetitive motions without apparent strain. The patient is often unaware that his activities are causing the disorder. He often mistakenly blames some bump or blow. Crepitation is sometimes noted in conditions of this type, whereas, in the De Quervain type crepitation is unusual. The chief complaints are pain and loss of grip. The patient, usually a woman, may note that she "always drops things."

The treatment of these conditions is an immediate and complete cessation of the activity which brought it on. Rest by splinting cures many cases.[5] Operation is often necessary for disease of the constrictive types.[7] In the author's experience, heat and physiotherapy do more harm than good. The author has observed an extraordinary number of cases of the De Quervain type that occurred in persons carrying out enameling operations in which the operators strenuously gripped tongs all day long in the presence of extreme heat. The factor of heat is probably only coincidental.

If these conditions are recognized promptly, they are not much of a problem. Frequently they are not recognized and the patient is allowed to return to work too soon and the condition recurs. Frequently there is prolonged disability. Objective findings are minimal and the history, lacking any element of violence, often does not arouse suspicion. Frequently the patient is believed to be a malingerer.

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Epididymo-Orchitis

The Significance of the Condition in Industrial Surgery

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• *Epididymo-orchitis, caused by direct trauma, is an uncommon condition, and the history and symptoms are quite different from those of the considerably more common so-called indirect epididymo-orchitis that is ascribed to trauma or strains, and which in symptomatology and clinical course is much like acute, nonspecific, pyogenic epididymitis. The author is convinced that the indirect trauma of muscular strain or minor injuries does not cause epididymitis; it is probable that slight trauma of that sort merely draws attention to an already existing inflammatory process that has made the scrotal area more sensitive than usual.*

ACUTE, PAINFUL SWELLING of the testicles is a condition frequently observed by industrial surgeons. In the minds of patients and the physicians who examine them, the condition is so often associated with strain or minor trauma that the term *traumatic epididymo-orchitis* is frequently applied, which places it in the category of traumatic medicine. Yet the diagnosis of traumatic epididymo-orchitis is rarely justified when the facts are critically considered.

Infections of the lower genital tract (the prostate, seminal vesicles and posterior urethra), frequently spread to the epididymis, producing epididymitis in men of all ages and all walks of life. Inflammatory lesions of the epididymis, although most frequently due to nonspecific pyogenic organisms, may be due to specific infections, such as gonorrhea and tuberculosis, or may be metastatic in origin and follow bacteremia or septicemia. Frequently they develop after the use of retention catheters or instrumentation of the urethra.

In most instances, nonspecific epididymitis results from a progressive, nonsuppurative infection which has spread from an infection in the lower genital tract (the prostate, seminal vesicles, and posterior urethra), which may be apparent or without clinical manifestations, by way of the lymphatic channels of the vas deferens, or possibly by extension along the lumen of the vas deferens by direct continuity.

In certain circumstances infectious secretions from the lower tract as well as infected urine may ascend by way of the lumen of the vas deferens, when the walls are stiffened by inflammatory infiltration and the lumen is widened by cicatricial contraction and the ejaculatory duct is gaping. However, such a route is unlikely and urinary reflux through the lumen of the vas deferens is unusual. The normal ejaculatory duct prevents reflux of urine. The clinical picture of erroneously called indirect traumatic epididymo-orchitis is identical to that of nonspecific epididymitis, which is usually unilateral. The early initial symptoms of pain or discomfort in the inguinal region due to inflammation of the contiguous peritoneum, and swelling of the entire spermatic cord within the inguinal canal, are invariable. The initial inguinal pain is followed after a short interval by a more intense pain in the testis and epididymis. The skin of the scrotum becomes hot and red, but not ecchymotic, as the contents swell and become painfully tender to palpation or manipulation. Nausea and vomiting are of reflex nervous origin. Chills, fever, and prostration are due to absorption of toxic products coincident with the inflammation. Urinary symptoms, when present, are due to prostatitis, posterior urethritis, and cystitis.[3]

Herbut,[2] in describing the pathologic changes and complications of nonspecific epididymitis, stated that if the process is not extensive, it may completely resolve, but that generally it passes on to the subacute or chronic stage. The latter is represented by a disappearance of the congestion and the plastic exudate and by a complete replacement of dense, hyalinized, acellular, fibrous tissue. This completely replaces and destroys the epididymis and firmly unites this organ with the testis. Within the sclerotic tissue there may or may not be residual abscesses. When the infection is more severe, there is complete breakdown of tissue, with typical abscess formation. In recurrent lesions there is a mixture of the acute and subacute or chronic process. The testis, in cases of epididymitis, is generally normal. The most common accompanying lesions are urethritis, prostatitis and seminal vesiculitis. Local complications consist of incomplete resolution, hydrocele, abscess

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formation, relapse, atrophy of the testis, sexual neurosis, sterility (when disease is bilateral), and rarely thrombosis of the veins of the spermatic cord and gangrene of the testis.

The diagnosis of epididymitis is based upon the clinical history, symptoms, and physical findings. A urethral discharge harboring specific (gonococci) organisms, or the usual nonspecific pyogenic organisms, or the finding of pus, erythrocytes and pyogenic organisms in the centrifuged urine, associated with a prostatitis and seminal vesiculitis, is indicative of epididymitis not due to indirect trauma or strains.

Traumatic epididymo-orchitis implies direct (unilateral or bilateral) injury to the contents of the scrotum. Such a clinical diagnosis is tenable only when there is a history of a direct injury to the scrotum, followed immediately by a variable degree of shock, excruciating pain, swelling, and ecchymosis of the scrotum. Such an injury, with scrotal swelling, may go on to complete resolution or terminate in atrophy of the testicle.

Minor trauma to the scrotum and its contents is an every-day incident in males from birth until death. The concept that such trauma occurring at the place of employment on one occasion results in acute epididymitis, therefore would seem to be untenable. If the examining physician in such circumstances is diligent in his analysis of events immediately preceding such an episode and in his examination following the appearance of epididymitis, evidence of chronic prostatitis or infection of the posterior urethra preexisting the injury will usually be noted and the sequence explainable on the basis of the usual spread of such an infectious process from the lower genital tract. A more common sequence is that funiculitis and epididymitis have actually already occurred at the time of injury and that minor trauma of the scrotum such as might occur often and not be noticed is brought to the patient's attention because the scrotum has become hypersensitive.

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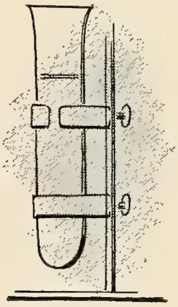

Tinea Capitis Due to Trichophyton Tonsurans

Incidence, Diagnosis and Epidemiology in the San Francisco Bay Region

HERBERT L. JOSEPH, *M.D.*, Vallejo, and
CARLYN HALDE, *Ph.D.*, San Francisco

• *Eighty-five cases of tinea capitis due to T. tonsurans were observed in the San Francisco Bay area during the five years 1950-54.*

This disease, unlike the common microsporum infections, sometimes affects adults and adolescents.

Hairs infected with T. tonsurans do not fluoresce under the Wood's light. Diagnosis is a laboratory procedure in which the fungus is isolated from the hair.

There are three clinical varieties of the disease. The course is prolonged and treatment is unsatisfactory.

The disease apparently has spread from Mexico, through the Southwest and Southern California. Control is difficult.

SINCE MOST PHYSICIANS are familiar with the common microsporum ringworm of the scalp, the primary purpose in this presentation is to discuss tinea capitis caused by a species of fungus which has been observed recently in the San Francisco Bay area. This organism, Trichophyton tonsurans, has been found in tinea capitis in increasing numbers of cases throughout the United States, especially the Southwest, in the last few years. A large number of cases was reported from the Los Angeles area in 1952.[4,7]

Scalp infection by T. tonsurans does not always undergo spontaneous cure at puberty as do the microsporum infections. Consequently, this disease may be found in adolescents and adults. Trichophyton tonsurans-infected hairs, in contrast to microsporum-infected hairs, do not fluoresce under filtered ultraviolet (Wood's) light. Yet another characteristic of T. tonsurans infections is the great variation in clinical manifestations in different patients. While the most common clinical findings are scattered, irregular areas of alopecia, short broken hairs and pustular folliculitis, the clinical picture may vary from mild seborrhea-like scaling to severe kerion with scarring and permanent alopecia. For these reasons, along with its infectiousness, indolence and chronicity, tinea capitis due to T. tonsurans presents a most difficult diagnostic, therapeutic and epidemiologic problem.

INCIDENCE

One of the authors first made the diagnosis of T. tonsurans infection of the scalp in 1950, and since that time the disease has been found in 52 patients—42 from the Stanford Dermatology Clinic in San Francisco and ten from the north San Francisco Bay area who were seen in private practice. Thirty of the cases were diagnosed during 1954. During this same period 278 patients with microsporum infections of the scalp were observed. Thus, of a total of 330 cases during the past five years, 16 per cent were caused by T. tonsurans.

Table 1 shows the relative incidence of the various species of fungi in tinea capitis cases at the Stanford Dermatology Clinic and in private practice in the North Bay area. It appears that M. audouini causes most of the infections in clinic patients in San Francisco (69 per cent of 205 cases at Stanford) whereas in the North Bay region M. canis is more common. In a survey of dermatologists in the immediate areas surrounding most of San Francisco Bay, M. canis was reported most frequently as the cause of tinea capitis. Vallejo is probably a representative community in this respect, with 63 per cent of the cases due to M. canis. However, there are localities outside San Francisco, for example, Benicia, only 6 miles from Vallejo, where 83 per cent of the cases are due to M. audouini.

Thirty-three cases of T. tonsurans infections of the scalp in the five years covered by this study were reported in a survey the authors made of Bay Area dermatologists. These, with the 52 cases already mentioned, make a total of 85 cases of tinea capitis in this area from which T. tonsurans was isolated.

CLINICAL MANIFESTATIONS

Microsporum scalp infections occur almost exclusively in childhood and fall into two general clinical types: (1) Indolent, scaly, "gray patches,"

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TABLE 1.—*The relative incidence of fungi responsible for tinea capitis in the San Francisco Bay Area (1950-1954)*

	M. audouini		M. canis		T. tonsurans	
San Francisco (Stanford Dermatology Clinic)	141	69%	22	11%	42	20%
North Bay Area	50	40%	65	52%	10	8%
Total	191	58%	87	26%	52	16%
Total cases 330.						

TABLE 2.—*The characteristics of tinea capitis as seen in the San Francisco Bay Area*

	T. tonsurans	M. audouini	M. canis
Age	Adolescents and adults as well as children	Children	Children
Sex	More males	More males	More males
Spontaneous cure at puberty	No	Yes	Yes
Wood's light reaction	No characteristic fluorescence (infected hairs may appear dull gray)	Infected hairs green	Infected hairs green
Clinical appearance	Irregular bald patches interspersed with normal hairs. Scaling. Pustules and kerion common. Pruritic.	"Gray patches" of broken hairs. Inflammatory reaction infrequent.	"Gray patches." Inflammation. Pustules or kerion common.
Organism in hair	Large-spore endothrix	Small-spore ectothrix	Small-spore ectothrix
Source	Human	Human	Animal and human

single or multiple, with minimal inflammation. These are mostly due to the "human type" fungus, M. audouini, spread from child to child. (2) Inflammatory lesions, either pustular or with large boggy kerions associated with secondary bacterial infection. These are most commonly due to M. canis, which may be acquired from animals, particularly kittens. In both inflammatory and noninflammatory lesions infected hairs become lusterless and brittle and they break off or fall out. These hairs are more easily plucked than those not infected. Itching is not a common complaint. There may be enlargement of the posterior cervical nodes and pain with the pustular or kerion reaction. No attempt was made to determine how many of the tinea capitis patients observed by the authors had coexistent tinea corporis, but certainly a large percentage had lesions on the glabrous skin. Microsporum-infected hairs have a greenish fluorescence under a Wood's light.

Trichophyton tonsurans infections of the scalp may be clinically identical to those produced by the microsporum species. The hairs are not fluorescent. However, in 11 patients, infected hairs appeared dull gray under the Wood's light. The authors have been able to distinguish three clinical types of T. tonsurans infections which are suggestive but not diagnostic (Table 2):

Type I. SEBORRHEA-LIKE: Lesions with scaling or itching in irregular indolent patches resembling seborrhea (Figure 1). Often the patients are unaware of the disease because of the minimal symptoms. There is little loss of hair, and only by intensive searching, preferably with a hand lens, can a few broken hairs be found. There is little or no visible erythema. (With regard to this generalization, however, it should be noted that most of the patients we observed were Negroes.) The patches in the scalp are not well defined as in classical "ringworm," but are usually irregular or along the part in the hair, most often with moderately thick greasy scales. The "ringworm" pattern may be seen on the glabrous skin. Adolescent and adult patients who were observed showed this indolent form of the disease over a period of years.

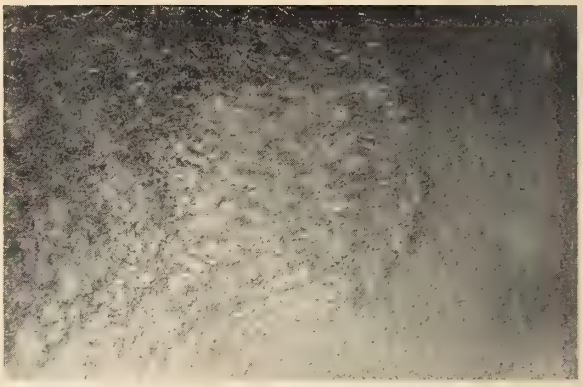

Figure 1.—Infected area at temporal hairline. Note the classical papulo-vesicular raised "ringworm" margin on the glabrous skin. This is absent above the hairline, suggesting a different immunologic response in the scalp.

Perhaps most significant is the paucity of signs and symptoms in this form of infection. Several of the children's parents brought the patients stating they could see lesions on the scalp, whereas grossly the authors could see little or nothing abnormal. The diagnosis was established only when the cultures were grown. It was often difficult to select a site from which to make the culture. Twelve (23 per cent) of the patients in the present series had this mild form of the infection. Five of the 12 were over 12 years of age.

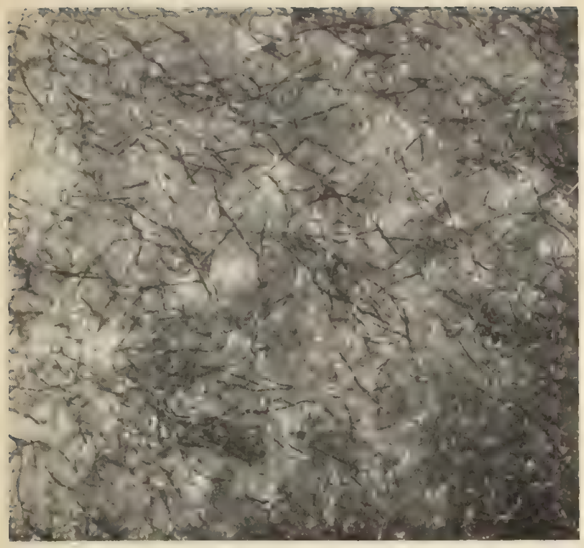

Figure 2.—Follicular pustules in Type II infection. No well-defined patch is found.

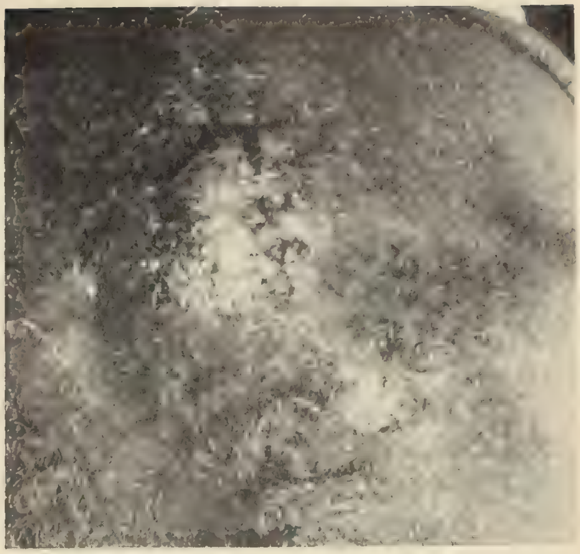

Figure 3.—Two kerions on the vertex of the scalp (Type III).

Occasionally a few "black dot hairs" were noted —brittle infected hairs broken off in the follicle at or just below the skin surface. These were sometimes covered by scales and were revealed only after shampoo or keratolytic medication removed the scales. In the present series only six patients had a great number of "black dot hairs."

Type II. Pustular: Lesions consisting solely of follicular pustules which may appear sometimes in areas of erythema and alopecia (Figure 2). Some of these lesions were round or oval in shape, with accuminate pustules, while in other cases there were only a few pustules in lesions that otherwise resembled those of Type I. Occasionally long normal hairs appeared interspersed in areas of alopecia or in areas of short, broken infected hairs. Infected hairs are easily epilated manually whereas normal hairs are not. Twenty-four (46 per cent) of the patients in the series, all under 12 years of age, had this form of the disease.

Type III. Kerion: Frank kerion formation associated with secondary bacterial invasion which shows severe tissue reactions and large boggy areas indistinguishable from the kerion of microsporum infections (Figure 3). Sixteen (30 per cent) of the patients in the series had lesions of this type. All except one were under 12 years of age. By comparison, kerion developed in 12 per cent of patients observed by us who had M. audouini and 18 per cent of those with M. canis infection.

Pipkin[6] called attention to the relatively high incidence of tinea capitis due to T. tonsurans in adults and adolescents. Three of the patients in the present series were adults (over 16), two were adolescents (12 to 15), and the remaining were children under 12. All the five patients over 12 years of age had the seborrhea-like form of the disease. The average age of the children was five years. The oldest patient was 62; the youngest, 2 years of age. There were 10 females, 42 males. Forty-six were Negroes and six Caucasians.

DIAGNOSIS

In none of the cases in the series could the diagnosis of T. tonsurans infection have been made without laboratory study. The clinical findings and lack of fluorescence could not be relied on alone, even by physicians familiar with the disease. Two procedures, readily applicable in office practice, are essential for diagnosis.

1. Direct examination of hairs or skin scrapings in potassium hydroxide. The hairs from suspected areas that are the easiest to pull out are the hairs most likely to be infected. Broken hair stubbles, if any are seen should be selected for examination. The hairs should be placed on a slide with a drop of 20 per cent potassium hydroxide and gently warmed (not boiled) or allowed to stand for about 30 minutes for "clearing." Examination should then be done under high dry magnification with subdued light.

Hairs infected with T. tonsurans are filled with broad strands of hyphae which readily break up into chains of large spores. These arthrospores vary from cuboidal to spherical in shape, are 4 to 5 microns in diameter, and are arranged linearly within the hair shaft. They are most numerous near the base of the shaft. This is infection of the large-spore endothrix type. In contrast, microsporum-infected hairs with a mosaic sheath of small spores

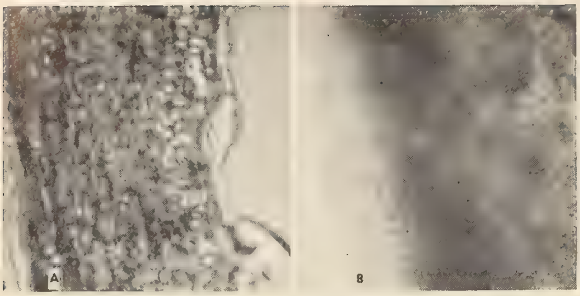

Figure 4.—*(a)* Large endothrix spores of Trichophyton tonsurans seen within the hair shaft. *(b)* Ectothrix spores of microsporum seen as a mosaic sheath on the surface of the hair shaft (×600).

surrounding the outside of the hair shaft have a small-spore ectothrix type of infection (Figure 4).

Scales removed from the scalp by scraping with a dull scalpel should be examined also in potassium hydroxide. These scales sometimes contain hyphal filaments. The hyphae appear identical to those in scrapings from any "ringworm" lesion, regardless of the species causing the infection.

2. Culture. Trichophyton tonsurans can be identified only by culture. It grows rapidly on Sabouraud's agar as white, yellow or tan velvety or powdery colonies. The reverse of the colony may be reddish-brown. The center of the colony may be crateriform. Microscopic mounts from the colony show numerous, large, clavate microconidia growing along the sides of the hyphae or on short lateral branches. The cell of the hyphae from which a microconidium develops generally remains unstained when mounted in lactophenol-cotton blue, whereas the microconidium takes a deep stain. Owing to the great variability in cultures, training in mycology is necessary for identification. Where facilities for proper identification are not readily available, cultures, hairs, or scrapings may be mailed to the State Department of Public Health Laboratory, the various medical school mycology laboratories, or to the Communicable Disease Center of the U. S. Public Health Service. Spores in dry hairs or scrapings remain viable for months or years at room temperature.

EPIDEMIOLOGY

Apparently T. tonsurans infections are transmitted directly or indirectly from human to human. No animal infections have been reported. Kligman and Constant[5] and others have reported family epidemics of T. tonsurans infections. The authors found 24 infected persons in nine families. Five members of one family, three adults, one adolescent and a nine-year-old boy, had Type I infections. All other familial infections were in preadolescent siblings.

Before World War II, M. canis was responsible for most cases of tinea capitis in the United States, mostly from animal sources, especially young cats and dogs, although human to human infections occurred frequently. Following the mass migrations of war workers and their families during World War II, epidemics of M. audouini appeared throughout the country. It is believed that these infections were carried from the large eastern cities, where they had been endemic for years.

Trichophyton tonsurans infection was known to be common in Mexico and Puerto Rico before World War II.[1, 3] There were scattered case reports from the East and Midwest until, in 1952, Pipkin reported a large series from Texas.[6] Since that time T. tonsurans infections have appeared in increasing numbers in the Southwest. Georg[2] expressed belief that these cases were owing to spread of infection from Mexico. Many cases have been reported in Southern California.[4, 7] Now the disease is appearing in Northern California in increasing numbers. Several of the patients in the present series had migrated from Texas and Oklahoma and many lived in housing areas near large government installations.

The Wood's light is of inestimable value in screening school children for microsporum scalp infections during epidemics. Veterinarians also have been alerted to its value in the diagnosis of microsporum infection in animals. Since Trichophyton-infected hairs are not characteristically fluorescent, it is readily seen that control measures are difficult to institute. Yet diagnosis and treatment is essential to prevent widespread epidemics. Nearly 25 per cent of the tinea capitis cases now seen in the Stanford Dermatology Clinic are due to this organism. In addition, eight infections limited to glabrous skin have been observed.

As was stated previously, M. audouini was the fungus most frequently isolated from cases observed in clinic practice seen in San Francisco and M. canis was the most frequently seen in private practice in areas surrounding the Bay. It is believed that T. tonsurans will be found more frequently if it is sought for and cultures are made of material from suspected cases. The technique for making cultures is simple and could be used for screening if school nurses and public health authorities were instructed. However, the cultures must be identified by a mycologist.

Enforced public health measures, including standardized methods of reporting, isolation and care of school children, and adequate instruction of school nurses and physicians should help control the spread of tinea capitis.

COURSE AND TREATMENT

The chief obstacle in treating and controlling T. tonsurans infections is the difficulty in obtaining adequate patient cooperation for follow-up. Patients with infection of Type I or Type II, with minimal, sometimes almost insignificant symptoms, neglect to return and often simply ignore the disease. Adequate patient education is difficult but important. For these reasons it was not possible to make adequate continuing observation of patients in the present series and hence obtain accurate statistics on the course of the disease. The criterion for cure is a negative culture. It is a certainty that the disease lasts for many months or several years. Two of the adult patients in the series had Type I lesions for at least eight years. It is most difficult to determine when a Type I infection is cured.

As in the microsporum infections, inflammation, either with pustules or kerion, is considered a good prognostic sign, as it indicates tissue response. In seven children with inflammatory (Type II or III) forms of the disease, spontaneous cure appeared to have occurred after 12 to 18 months. During most of this time topical fungicides were being applied, but it is questionable that this altered the course of the disease.

Because of poor patient cooperation plus the fact that Types II and III appear to undergo slow but definite spontaneous cure, the authors have not used x-ray depilation in cases of T. tonsurans scalp infections. It must be admitted that the treatment that has been used, consisting of topical applications of several of the many available fungicides, is not readily effective and that any cures obtained were most likely due to the patient's own immunologic mechanism. In the very chronic and indolent Type I infections, x-ray depilation probably is effective therapy.

Most of the authors' efforts have been directed toward controlling the spread of infection. The scalp should be covered at all times with a tight-fitting cotton stocking cap. The caps should be changed daily and the soiled caps boiled. The hair should be cut short (one-fourth inch or less) preferably with clippers, and it should be thoroughly shampooed at least twice weekly. Shampooing after clipping is important in order to wash away infected hairs. Hair clipped off should be burned. The head of the clipping instrument should be sterilized after using, preferably in phenol solution. Care should be taken with bedding, towels and headwear. Close contact with other persons must be avoided as much as possible. Fungicides in an ointment base applied twice daily to infected scalps probably suppress the spread of infection to others. Most important is the careful examination with culture of all members of the family and others in close contact with the infected person. In addition, patients should be cautioned against having haircuts in public barber shops. It has been our policy to allow infected children to attend school and to notify the school health authorities. Only in rare instances—when proper care and cooperation could not be obtained—has it been necessary to exclude infected children from school.

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CASE REPORTS

Pulmonary Alveolar Adenomatosis

Report of a Case

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PULMONARY ALVEOLAR ADENOMATOSIS has been regarded as a variant of alveolar cell (bronchiolar) carcinoma.[9] The tumors differ from bronchogenic carcinoma in their multicentric origin, in their relatively benign microscopic appearance and in that they rarely metastasize.[9] Clinically, the condition simulates chronic low-grade pulmonary infection with progressive involvement of the lungs and fatal termination.[2] On the x-ray film the lesions are either pneumonitic or nodular[8, 11] in appearance. Microscopically, hyperplasia of the alveolar epithelium and metaplasia into columnar mucus-producing glandular tissue[2] can be observed. Curiously, pulmonary adenomatosis resembles a viral respiratory disease of sheep that is called Jaagsiekte.[5, 6] The infrequency[14] of proven instances of this condition prompted the following case report.

REPORT OF A CASE

The patient was a 46-year-old Chinese-American farmer who resided in a suburb of Oakland, California. Except for yearly bouts of "flu" lasting for one to three days, he had always been well. During the second World War he was an electric arc welder in the shipyards for approximately four years. He said he did not use tobacco. The present illness began as a "chest cold" in April 1951 with a productive cough aggravated by exertion. An ounce of mucoid grayish white sputum was raised in 24 hours. The patient had pleuritic pain in the right side of the chest and wheezing on recumbency. There was no history of hemoptysis or of streaked sputum. At the time the patient was first examined in November 1951, the foregoing symptoms had persisted some seven months. In addition, the body weight had decreased 10 pounds and moderate dyspnea was present.

The patient was well developed and appeared to be in reasonably good health. Upon physical examination the only noteworthy abnormalities observed were of areas of consolidation over both lung bases. There was no enlargement of lymph nodes and no skin lesions. Results of skin tests for tuberculosis, coccidioidomycosis and histoplasmosis were negative.

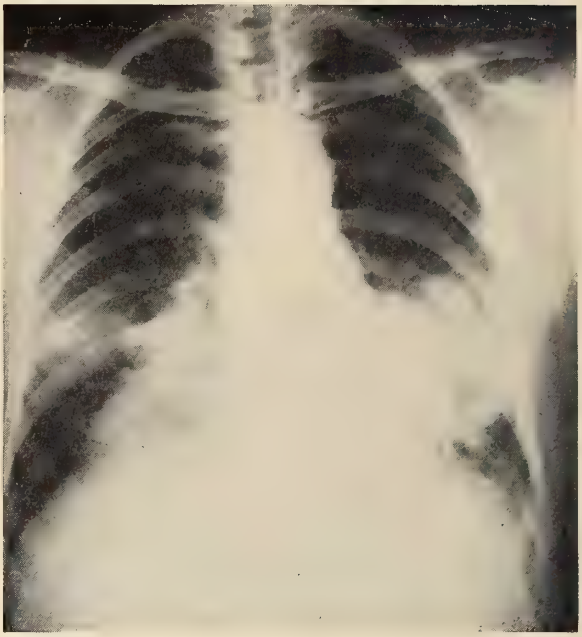

Figure 1.—X-ray film of chest December 3, 1951, showing bilateral diffuse pneumonic infiltration.

Roentgenograms of the chest showed a diffuse pneumonic type of bilateral pulmonary infiltration (Figure 1). Examinations of sputum and material from the stomach by concentration, smear and culture were negative for tuberculosis. The hemoglobin content of the blood was 15 gm. per 100 cc. and erythrocytes numbered 5,050,000 per cu. mm. Leukocytes numbered 11,900 per cu. mm.—81 per cent polymorphonuclear cells and 19 per cent lymphocytes. The sedimentation rate was 25 mm. in one hour (Westergren). Serum albumin was 3.7 gm. and globulin 3.1 gm. per 100 cc. Cholesterol content was 227 mg. per 100 cc. Blood chlorides were 420 mg. per 100 cc., or 73 milliequivalents.

On bronchoscopy no tumor or other abnormality was observed. The report on a Papanicolaou test was "Group 3, doubtful." Biopsy of a superior mediastinal lymph node was negative for disease. Exploratory thoracotomy was performed and the right middle lobe was removed.

Pathologist's Report. The entire middle lobe of the right lung was indurated, rubbery in consistency

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Submitted May 27, 1955.

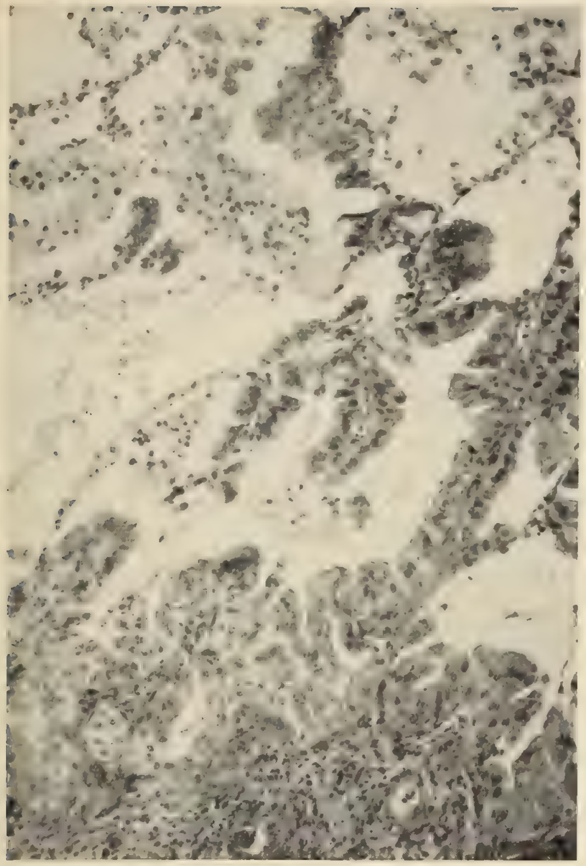

Figure 2.—Section from tumor mass removed at lobectomy. Note the adenomatous appearance of the lung. (× 100).

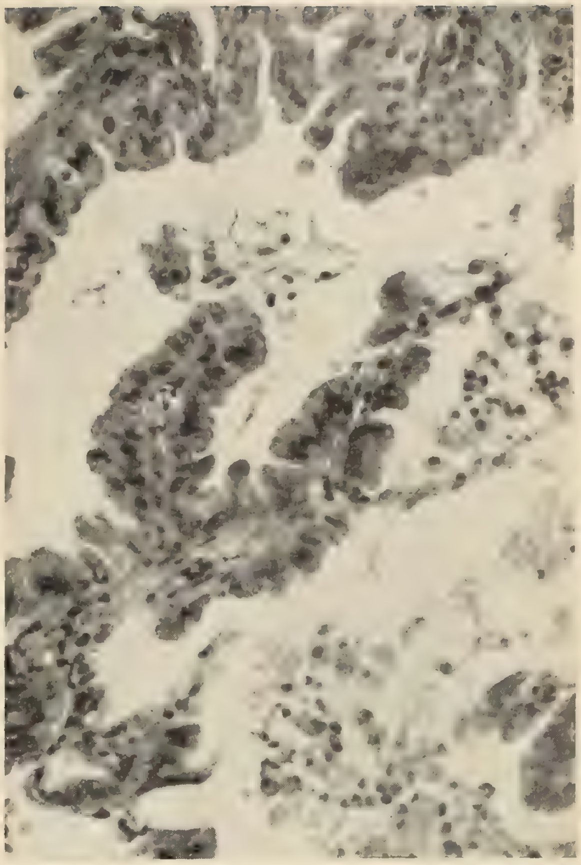

Figure 3.—Same section (× 430). The deeply staining tall columnar epithelium is striking.

and somewhat grayish in color. Sections (Figures 2 and 3) from various areas of the lobe were similar one to another in microscopic appearance. The lesion appeared to be diffuse. There was pronounced hyperplasia of deep-staining, high columnar epithelial cells lining the alveoli. The lining epithelium appeared to invaginate into papillary folds and adenomatous masses. There was an abundance of mucinous substance into the intra-alveolar spaces. The basement membrane was preserved. No mitotic figures were seen. The impression was pulmonary adenomatosis.

The patient was given 1,000 r of deep x-ray radiation in the depth of each lung. However, the condition of the patient deteriorated. Cough and dyspnea increased; the sputum became frothy, mucoid and abundant; weakness and loss of weight continued. Examinations of the blood showed progressive anemia. The disease process as observed roentgenographically increased in extent (Figure 4). The patient died a year after the onset of symptoms. Permission for autopsy was not granted.

DISCUSSION

The subject of pulmonary adenomatosis has been ably discussed by Wood and Pierson,[15] Delarue and Graham,[3] Paul and Ritchie,[11] Weir[14] and many

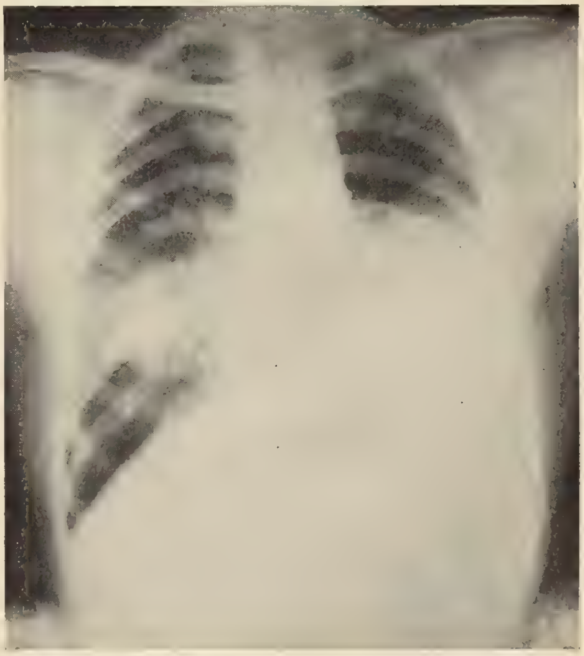

Figure 4.—X-ray film of chest taken after excision of the right middle lobe. Note increase in extent of tumor mass in the left lung.

others.[4, 12, 13] Weir reviewed 70 reported cases (of which he accepted 33) and then himself added reports of three cases. Bubis and Erwin[2] described the clinical picture accompanying this lesion as follows: There is a long, slowly progressive downhill course with persistent bronchopulmonary symptoms of low grade infection. No causative organisms have been found. The roentgenograms may show little change over a period of months or years. The lungs are grossly voluminous and heavy with raised moist gray patches of tumor. Microscopically, there is a transformation of normal alveolar lining by hyperplasia and metaplasia to a benign mucus-producing columnar epithelium. Ikeda[8] and Paul and Ritchie[11] described a multiple nodular form and a diffuse pneumonic type.

Most investigators have mentioned the remarkable similarity of pulmonary adenomatosis to a disease of sheep known as Jaagsiekte, which has been extensively studied by Dungal[5, 6] of Iceland. In sheep, the characteristic symptoms are slowly increasing dyspnea accompanied by excretion of a frothy, slightly opalescent watery mucus from the respiratory passages. The onset is insidious with a lapse of six months between contact and visible symptoms. There is no fever. Dungal expressed belief that the disease in sheep is probably caused by a pneumotropic virus which grows intracellularly in alveolar and bronchiolar epithelium. The sheep disease is not transmissible to humans.

The majority of writers on human adenomatosis have said they believed the lesion is neoplastic rather than infectious. However, the epithelial-like lining cells seen in this condition may be produced in the lung by a variety of other conditions,[1, 7] by foreign bodies, by tar and tar derivatives, by chronic passive congestion, by various kinds of viral and bacterial or chemical pneumonia and by x-ray irradiation. As a matter of fact, cells of this kind may be seen in the lining of the alveolar wall in so-called normal lungs.

Although the clinical manifestations resemble those of progressive fatal pulmonary infection, it is the replacement of normal lung tissue by the expanding tumor mass—simply, cancerous growth—which leads to anoxia, dyspnea and eventual death. This can be observed roentgenographically, particularly in the pneumonic form, in which massive, solidly infiltrative lesions are seen and where there can be no doubt how internal asphyxia occurs. In sharp contrast to the singularly pulmonary origin and involvement of this lesion is that of bronchogenic carcinoma. In the latter, the lesion originates in the bronchus and involves the lung parenchyma either by obstructive atelectasis, by contiguous growth or by infectious sequelae of partial bronchial obstruction. Finally, adenomatosis must be differentiated from metastatic lung carcinoma as well as chronic aspiration pneumonia including lipoid pneumonia.

Since adenomatosis is often confined to one lobe and metastasis is rare, it may be curable. Hence, prompt diagnosis is important. The lesion ought to be kept in mind at all times. Resection in unilateral cases will not only establish the diagnosis but may prolong or even save life. This was the case in the patients of Woods,[15] Graham[3] and Osserman.[10]

In the case here reported there was involvement of multiple lobes at the time of diagnosis and cure then was impossible. X-ray radiation was of no apparent value. The clinical course in the present case resembled that usually reported in other cases.

SUMMARY

Pulmonary adenomatosis is an uncommon tumor of the lung. It is probably a variant of alveolar cell carcinoma. Morphologically, it resembles an epizootic disease of sheep that is called Jaagsiekte. The clinical course is similar to that of persistent progressive low-grade pulmonary infection. Roentgenograms show either a diffuse pneumonic infiltration or multiple nodules. Diagnosis is established by tissue examination following excision. Hyperplasia and metaplasia of the alveolar epithelium into columnar, mucus-producing glandular tissue can be seen microscopically. If the disease is unilateral, lobectomy may prolong or save life.

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Coccidioidomycosis in Dogs

A Report of Three Cases

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IT IS THE PURPOSE of this paper to present three clinical cases of coccidioidomycosis in dogs, and to discuss briefly the potential epidemiologic significance of such infections in household animals.

CASE REPORT

CASE 1. On November 28, 1953, a previously healthy 18-month-old female Scotty was hospitalized with a three-day history of trembling, anorexia, fever and slight cough. The dog had been born and reared in Taft, California. There was no history of previous illness. Findings on admission were those of a respiratory tract infection, with temperature of 104° F. rectally (normal 101.5°). During the next few days despite therapy including anticanine distemper and hepatitis serum, dihydrostreptomycin and penicillin intramuscularly, and sulfonamides orally, cough increased and dyspnea was noted. No further antibiotics were administered. In the following two weeks on supportive treatment only, although intermittently febrile, the dog improved sufficiently to permit discharge from the hospital. Subsequently C. immitis was isolated on culture of sputum taken December 10, 1953.

Roentgenograms of the chest on December 15, 1953, showed an area of infiltration overlying the right diaphragm. No enlargement of nodes or bone lesions were noted. A follow-up roentgenogram taken February 28, 1954, showed complete clearing of the previously described infiltrate. On October 5, 1954, eleven months after the onset of illness, a complement fixation test for coccidioidomycosis showed a four plus reaction in dilutions through 1:24. In the meantime the dog had become and remained asymptomatic.

Comment: From this case it is apparent that the self-limiting "Valley Fever" syndrome, so common in humans in endemic areas, occurs also in dogs and can be diagnosed in a similar fashion. Thus a presumptive diagnosis of primary pulmonary coccidioidomycosis could be made in this case on (1) the appearance in a highly endemic area of an acute respiratory disease that did not respond to treatment ordinarily effective in bacterial infections, (2) roentgenographic findings consistent with the diagnosis, and (3) the concurrent appearance in a kennelmate (Case 2) of a similar syndrome which progressed to histopathologically proven disseminated coccidioidomycosis. Final proof rests on the finding of C. immitis in the sputum and the presence of highly specific serological antibodies in significant titer.

CASE 2. On October 23, 1953, a seven-month-old male Scotty (kennelmate of the dog in Case 1) was hospitalized with a history of listlessness and anorexia of a week's duration, and possibly anuria during the preceding day. A distressed appearance and a slightly elevated temperature were noted at the time of admittance. The leukocyte content of the blood was greater than normal.

Following catheterization at the time of admittance the dog was able to void normally. During the next four days he received intramuscular injections of penicillin, dihydrostreptomycin and vitamins. Nevertheless the temperature rose to 104° F., there was slight loss of weight, and ascites appeared. During the ensuing month there was continued deterioration in the dog's condition despite administration of aureomycin orally and sulfonamides intravenously, forced feedings during periods of anorexia, and the administration of oxygen. On postmortem examination lesions of disseminated coccidioidomycosis were found in the lungs, mediastinal lymph nodes, myocardium, kidneys and adrenals.

Comment: This case was observed clinically from its onset as an acute respiratory infection through its subsequent dissemination and fatal termination. In this instance the disease ran a rapidly fulminating course.

CASE 3. On February 27, 1954, a previously healthy year-old male boxer, born and reared in Bakersfield, California, was hospitalized because of a two-day illness characterized by dyspnea and anorexia. The symptoms noted at admission were those of a respiratory tract infection with temperature of 105° F. rectally, and moist râles throughout both lungs. During the next month, in addition to supportive care, the dog received successive courses of the following drugs: Sulfonamides intravenously and orally, penicillin and dihydrostreptomycin intramuscularly, and aureomycin, chloramphenicol and erythromycin orally. There was partial clearing of the lungs but the dog remained febrile.

In view of the failure of these therapeutic agents, ordinarily effective in canine pneumonia, the possibility of coccidioidomycosis was entertained as early as the first week of treatment. On April 1, 1954, serologic tests for C. immitis infection showed complement fixing antibodies in dilutions through 1:32 and precipitins in dilutions through 1:40. These tests were performed at the School of Public Health, University of California, under the supervision of Dr. C. E. Smith, who reported, "While the specimen was anti-complementary and thus adequate interpretation of the complement fixation test is not feasible, precipitins offer convincing proof that [the dog] had coccidioidal infection."

The animal was next seen September 28, 1954, when he was brought in for euthanasia. In the interim there had been progressive wasting, and gradual enlargement of hard, apparently painful swellings on the legs which had been first noted by the owner in May, 1954. Before the dog was killed a blood specimen was sent to Kern General Hospital.

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Submitted March 25, 1955.

It showed a four plus reaction to the complement fixation test for coccidioidal infection in dilutions through 1:16. A roentgenogram of the chest showed a small calcific density at the right base, increased markings paralleling the right cardiac border, and evidence of rib destruction which had repaired by massive formation of callus. Roentgenographic examination of the right hind extremity showed a calcific overgrowth involving the entire distal fourth of the tibial shaft.

On postmortem examination the essential findings were coccidioidal granulomas of the lungs, particularly the pleural surfaces, the bones and the liver.

Comment: In this case the dissemination was manifested as a much more chronic process than in Case 2. There was a slow downhill course with granulomatous metastastic lesions.

DISCUSSION

Naturally occurring coccidioidomycosis, as contrasted to cases resulting from laboratory inoculation, has previously been reported in many animals including wild rodents, cattle, sheep, monkey and gorilla, chinchilla, and six times in dogs. In each the diagnosis was made on necropsy; thus Cases 1 and 3 reported herein are the first in which the diagnosis was established in a living animal.

That three cases of canine coccidioidomycosis were recognized at one veterinary hospital in a brief period indicates that the paucity of reports is not a true reflection of the frequency of the disease in pets. Inasmuch as dogs may have a self-limiting pulmonary infection (Case 1) it is probable that numbers of such cases in particular are going unrecognized. The question arises whether household transmission of coccidioidomycosis is possible. (In this regard recent reports[1, 2] dealing with histoplasmosis in animals and man on the same farm are of interest.)

Rosenthal and co-workers[4,5,6] proved in several significant experiments that sputum from infected animals can constitute a hazard. They showed that spherule-containing exudates could produce pulmonary lesions when instilled endotracheally. Further, when spherule-containing sputum was exposed under a variety of conditions, viable forms, both vegetative and parasitic, could be found for long periods. In addition they found that normal animals when housed with guinea pigs having pulmonary coccidioidomycosis, developed the disease. A similar means of infection is implied in a case report[3] of coccidioidomycosis in a dog never outside of Canada, after exposure to a dog from California.

SUMMARY

Three cases of coccidioidomycosis in dogs are presented. They demonstrate that a parallelism exists between canine and human manifestations of the disease, including the self-limiting "Valley Fever" syndrome.

Roentgenograms were interpreted by J. W. Birsner, M.D., Radiologist, San Joaquin Hospital, Bakersfield.

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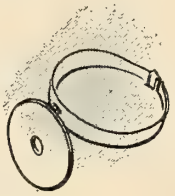

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EDITORIAL

Professional Liability

One in twelve doctors has a malpractice claim of some kind levied against him each year, according to analysts of the Northern California professional liability program. Some of these claims become lawsuits. Some of the suits are not successfully defended. The dollar size of judgments awarded by the courts increases enormously from year to year.

Trying to keep pace with the acceleration in claims, insurance companies have doubled and trebled premiums. But with premium increases always a year behind increases in the number and size of claims, the losses of the insurance companies have been staggering. They have progressively withdrawn from the field. Some insurance people hold the opinion that the day will come when physicians will be unable to get professional liability insurance at any price because there will be no insurance companies willing to underwrite the risk.

The medical profession, however, cannot withdraw from the problem of professional liability. Physicians will have to continue to live with it. Medical malpractice is therefore primarily a problem of medicine. It is not something the profession can leave to the insurance companies. It demands the interest and cooperation of every physician. It demands the study and effective, intelligent action of every medical organization.

For these reasons the California Medical Association accepted a responsibility for medical malpractice at the last meeting of its House of Delegates. The House created a Medical Review and Advisory Board to investigate and analyze all aspects of professional liability, to inform and advise the California profession, to make recommendations for effective action in this field and to cooperate with county societies and offer coordination of existing programs.

Ten physicians with a wealth of knowledge of professional liability matters in every part of the state have been named to the Board, with Joseph F. Sadusk, Jr., M.D., of Oakland, as its chairman and Wilbur Bailey, M.D., of Los Angeles, as its vice-chairman. The Board is well advised. It has retained the services of Joseph Linder as actuarial consultant. Mr. Linder guides the insurance aspects of the New York state malpractice insurance plan, the largest in the nation. Howard Hassard, C.M.A. legal counsel, whose law firm has nearly a half century of intimate experience in California malpractice, advises the Board on the legal aspects of the problem. Rollen Waterson, who originated the Northern California plan in Alameda County, serves the Board as executive secretary.

A section of California Medicine devoted to the problems of professional liability makes its first appearance in this issue under the heading, "Memo from the Medical Review and Advisory Board." Dr. Sadusk's first contribution to the section, "What Price Medical Malpractice Insurance," will excite a great deal of interest, spirited comment and some controversy. He paints a dismal picture—perhaps too dismal. However, his experience and research in the field have been wide and thorough. We cannot ignore his dire predictions. Certainly any physician who has a sense of complacency in the matter of professional liability will have lost it before he has read many paragraphs of Dr. Sadusk's paper.

Certain of his conclusions deserve emphasis here:

1. The physician who selects his malpractice insurance coverage on the basis of price alone invites disaster. Factors of prime importance are stability and integrity of the insurance company, limitation of clauses in the contract detrimental to the physician, permanence for yearly renewal of coverage, and adequate reserves in the United States for paying claims or for attachment in the event of a disagreement at some future date between carrier and physician. Malpractice actions may be—and are—brought against physicians many years after the actual incident occurs. The physician, therefore, must be certain his company will still be available to defend him and, if necessary, to pay a claim.

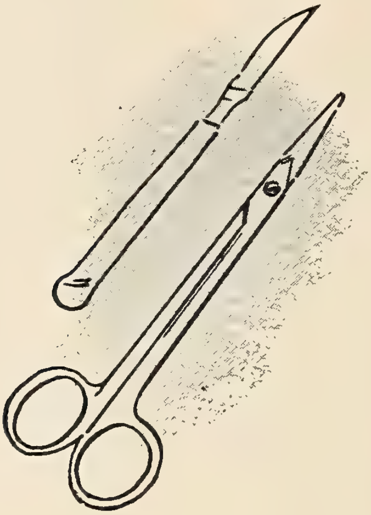
2. The low limit coverage of years ago is unrealistic today; physicians will do well to heed the author's advice, which is based upon observation of actual emotional and economic ruin of physicians who were inadequately protected.

3. The grouping of physicians for protection in this type of insurance is of benefit to all concerned. Only through a group plan can the physician be assured of the vital advantages of adequate investigation of claims, experienced defense, group negotiation with the carrier of contract and premiums, and other assets outlined in detail by Dr. Sadusk.

4. The problem is medicine's, and can be solved only by medicine. The most effective contribution to solution will be made when all physicians give full attention to the principles of "good faith, good records and common sense" as described in Dr. Sadusk's paper.

The new section on professional liability will appear periodically in future issues of California Medicine. In addition to reports of the Medical Review and Advisory Board, specific cases will be described and informed medical, insurance and legal opinions on malpractice will be communicated to the profession.

The assignment given to the Medical Review and Advisory Board is as vital as it is big and difficult. Absolute success is impossible, but reduction of claims and premiums and adequate protection for the individual physician can be achieved through informed cooperation of physicians with their county society programs, and cooperation of county societies with C.M.A.'s Medical Review and Advisory Board. Reading Dr. Sadusk's interesting paper, on page 389, is the first step toward the informed cooperation necessary to solution of the growing malpractice program.



LETTERS to the Editor . . .

The Salk Vaccine

EDITOR'S NOTE: *The opinions expressed are those of the author, not of* CALIFORNIA MEDICINE. *For the California Medical Association's position on this subject, see* CALIFORNIA MEDICINE, *June 1955, page 465.*

THIS COMMUNICATION will endeavor to present some points unmentioned in that large fraction of writing so strongly dedicated to a misguided optimism. I am not a physician, public health employee, owner of stock in or employee of commercial laboratories, or in any way an affiliate of Mr. Basil O'Connor, of Dr. Jonas Salk, or of federal government laboratories. However, I have endeavored to present the subject of vaccines to medical and pharmacy students for over 30 academic years; I have worked in and visited plants of producing laboratories; I have spent some years both directly and indirectly in public health; my profession is essentially that of Dr. Salk, and I have been more or less familiar with federal government ways of standardization for 30 years.

The abysmally sad manner of handling the vaccine can be blamed on any one of six groups with complete success, in the same way that each of six cogs in a machine is the most important, since without any one the machine falls down. The seventh group, medicine, composed of men who, although not perfect judges, spend their lives in the specific and exact study of how to preserve health and diagnose and cure disease, might even so have been the deciding factor; but it was not even asked about the vaccine or any phase of the project.

These are the six troublesome cogs. Mr. O'Connor and his Infantile Foundation unquestionably stepped out of line in usurping unwarranted authority in deciding how to spend the money of other people, in choosing among various workers on vaccines which ones should be favored with hundreds of thousands of dollars and unlimited support, and in devising a circus out of what needed to be an evolutionary procedure of the greatest caution. He had stepped out of line before and it was someone's fault for not halting him.

Next, Dr. Salk, whose name is usually by-passed because, in common with many, his motives are not impugned, let himself become a pawn of Mr. O'Connor, relative to acceptance of funds, publicity and plan of operation. This act was only one of hundreds in modern science, but as yet no one has seen fit or had the courage to call for refusals of cash and glory in order to uphold some of the higher potentialities of man.

Third, public health crews far and wide—although by no means all of them—hopped on the bandwagon as soon as they saw it. They began propaganda long before even any figures were available, and helped in scores of ways to build themselves and the machine without the slightest knowledge of what it was all about. This propaganda and blatant optimism was and is wholly inexcusable.

Fourth, the commercial interests, six large companies, started in on a long gamble. It may perhaps be left to businessmen to decide how justifiable this gamble was in a business sense, but the facts indicate a combination of three poor decisions, succumbing to greed (which is legitimate business in its way), perhaps to the offers of Mr. O'Connor, whose temptations in terms of cash were terrific and whose prospects as a press agent were obvious, and to the shortsightedness of Dr. Salk and the federal government laboratories, neither of them as experienced or as expert as the commercial laboratories themselves.

Fifth, we have the fourth estate, the press, which failed to uphold its traditional honor of cold, tough skepticism. Faced with Mr. O'Connor, Dr. Salk, garbled figures, public health press agentry and the heavy commercial gamble of millions, the newspapers gave in and joined the fun. There was hardly a skeptical word, in the run-of-the-mill press, at least, although it is now evident that occasional individuals issued guarded statements to indicate that they were not entirely fooled. It is the press, with radio and TV, of course, which carries so many innocent bystanders along with it.

Sixth and finally, there is the federal laboratory group, among whom the technical men were hardly mentioned, and the higher-ups, legitimately unable to tell a vaccine from a serum, were made the goats, as usual. The fact is that men of these laboratories, including the wise men along with politicians and expedient artists, were also pulled into a part in the grandstand play instead of standing on their own feet. They lacked the independence to take a strong stand against it. The world of Salk, public health and grants was common experience to them, whereas the world of medicine is all too rarely heard in the realm of vaccines.

Because each of these has leaned heavily on the others, it is improper to lay the blame on any one, possibly excepting the instigator, but when all are included censure can be rather heavy.

Turning now to the problem itself, the usual terms are inadequate. The usual terms pretend to

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Submitted August 23, 1955.

weigh the vaccine itself and the results secured with it. The vaccine is in no way original and is not really logically devised. It depended heavily on antibodies, although these have been produced by every vaccine ever invented, of which well over 90 per cent have failed. Furthermore, the use of formalin, known to be only a slowly lethal agent for microorganisms, especially the notably tough viruses, was bound to leave residual active virus. When the remaining virus became notably low, the fact that samples tested showed no virus failed to prove that vials not tested did not contain virus.

As for results, to many the "test of the pudding is in the eating." At least, so it seemed to many of the six groups and the innocent bystanders they were carrying with them. With this product, sensationally introduced, potentially dangerous and unproven, some of the points of truth were unquestionably seen by many medical men quite early. The opinions of these men were neither sought nor in many instances even allowed.

To get "results," seemingly so simple a matter, in 1954 the advance agents set up experiments with human subjects. The subjects were minors whose decisions were made for them by parents, a group of persons who might be expected to stand by their children but with whom fear played a tremendously influential role. The statisticians demanded "controls" and got them, although subsequent events proved, as was predictable, that controls were not only questionable experimentation but gave no aid in figures. The figures, whatever they were, were put in carefully palatable form by Dr. Thomas Francis, Jr., on April 12. How many have seen all the figures to weigh as they consider proper? The answer might satisfy some curiosity but would be of little consequence otherwise.

The answer to the layman, although not to the physician, seems absurdly simple. You simply vaccinate some children and turn them loose to see what happens. Then you add up the score to see whether or not the vaccinated children were protected. There is nothing to it. The child either gets poliomyelitis or he does not. Even a missed diagnosis would not matter much.

Simple as this looks, it requires a collection of observations because poliomyelitis is not common. The problem is not one of measuring benefits so much as one of measuring risks. Except for the circumstance of what was considered to be induced poliomyelitis in the spring of 1955, the risks would hardly have been mentioned. The bosses, who had the only files, admitted that there were in the 1954 experiments some 16 serious reactions and over 2500 minor reactions. Nothing much was said about the criteria of these reactions. Obviously it would be undiplomatic to make much point of any cases which occurred within a month after any of the injections, thus potentially induced, because this would reflect in retrospect on the whole chain, the bosses as well as the producers. In other words, in the experiment, we know little or nothing about the true total risks from the vaccine. Platitudes were murmured about some risks with all vaccines, and figures were produced such as that this year only 114 cases occurred in a short time after some 5,500,000 injections.

Examine the manner of that expression, designed to minimize the risk just as every figure favorable to the vaccine is presented to provide the greatest apparent benefit. These injections were given roughly during May, a low period for the disease. Newsmen are given figures saying that several hundreds of cases had occurred during May, not based on a comparable figure, 5,500,000. We are concerned in this country principally with about 32 per cent of some 160,000,000 persons, since for the most part the disease occurs among those under the age of 20. This is 51,200,000. Thus in round figures the number of cases among over 50,000,000 is set against the number of cases in more than 5,000,000. If the rate of poliomyelitis is about 10 per 100,000 in the population, over the normal year, it is around 30 per 100,000 for the 0-20 age group. This, however, is for the *year.* For a low month, May, the figure would be less than one-twelfth of 30, since August and September peaks may be 10 times higher than figures in other months. Suppose that there is usually one case per month per 100,000 persons under age 20, with ten cases per month in the two high months, for a first approximation. In short, some 55 cases might occur in May in 5,500,000 youths and young adults normally, but 114 are acknowledged. This hardly seems to reflect a minor accident, in the spirit of "a mere 114 in 5,500,000 and there are always some risks in vaccines anyway." This is the common abuse of apparent but not truly objective fact.

Consider another side of the risk, one which is fairly often discussed among medical men, although not often enough, and is otherwise kept almost entirely hidden. Are we so socialized that we must argue that saving five children at the expense of two who are killed who otherwise would have lived is a legitimate move? There are persons who so argue and who are even surprised that there is disagreement. All proper medical men and a large number of others will realize immediately that this outlook, whatever its social propriety, impropriety, or inhumanity, sets up a dictator, a man whose decisions are sacrosanct, the man who decides to kill some to save others.

Put it another way. Let us say that we can by vaccination kill two but save four. In other words, the net gain is two; but two would be all that would have died anyway. Certainly it is not even arithmetically ethical under the circumstances to kill two and save four. And *who* will be allowed to make such decisions? Ethics of course demands that we not introduce risks, if there is any alternative, and certainly in the present problem there were plenty of alternatives.

Practitioners sometimes confuse this problem with those of their practices. Serious surgical operation or cortisone therapy, for instance, introduces pronounced risks which must be set against the chances of success. Medicine in this sense is a daily round of the calculated risk. These, however, are *patients.* These are persons for whom the decision is as to what shall be done in a case of trouble—vastly different from calling Johnny in from his baseball game to inject a product which may reduce as well as raise his batting average in future games with fate.

The figures which are tossed loosely about, including those so sensationally presented on April 12, vary from accidental to deliberate misleading data. The problem is one of relative risks rates, applied to a segment of one-third of the population. Humane considerations demand that natural risks must be accepted when induced risks are significant. Three groups, not two, must be weighed: Risks among those not vaccinated, risks among those vaccinated which have been added by the inoculation, and risks of the disease among those vaccinated. Since the last two are in opposition, it is easy to see why many unused to this subject accept a favorable balance without demand that the two risks be differentiated.

These groups fit about 32 per cent of the population. Furthermore, an important point, our concern is with *rates.* A rate is a unit of illness per unit of *time*, and nearly all the figures bandy time around as though it did not exist. In San Francisco 32 per cent of 775,000 is 248,000. From April 1 to August 19 there had been reported eight cases, or 1:31,000 under the age of 20. This is four and a half months, however, which puts a different aspect on it; and it makes a difference which four and a half months, or any period, is used.

Furthermore, no criteria of disease are acceptable in this deliberately induced scramble. What do we do about criteria with a disease which is regarded as beneficial if it occurs too lightly to be diagnosed, as of little consequence if it is recognized but does not paralyze, as dramatically serious if it paralyzes but with a fair percentage of fair recoveries, and as fatal in all too many cases but so irregularly that death, the sharp criterion, is not a measure of results. There has been a tendency to settle for paralysis as the criterion, but it is neither widely accepted nor does it lend itself to good figuring. Add to this difficulty the aforementioned differences in intervals of time, which are so much a part of any figure on rates, plus the fact that there are now children who were given the vaccine last year, those who had one shot this year, and those who have had more than one shot, plus the fact that one city considers one age group, another another, and most of them measure public health or school groups without regard to private inoculations—add these factors and you have some of the bases for the scramble, put on purely objective grounds.

On top of this, all the evidence has for years indicated that the great factor in immunity to this disease is in unrecognized infections. These are presumed to be some 100-fold the number of recognized infections. This, compared to any figures presented in any light, to date, makes our press agents' dreams a bit rosy, to put it mildly. Natural method is uncharted but it is large and effective, with man buzzing around its edges.

Can the score be added, even tentatively, at this stage? Possibly an idea can be gained. The April figures, carefully presented in terms of startling percentages, instead of in terms of calculated risks (for the most part the average of 60+ per cent, 70+ per cent, and 80+ per cent, was taken as 90 per cent!) were sadly misleading but slightly favorable in their way. That is, the chances of getting the disease in the age groups considered were around 1:2100 during the "season," whatever that was, and this was potentially reduced by the intensive series of inoculations to 1:3700. This is based on this age group, one season, intensive shooting, a single vaccine, and recognized cases. How to get even 60 per cent out of this is puzzling, but it indicates two things clearly, that at public health prices (with overhead discarded) an investment of $10,000 and up —probably well up—might save a case of poliomyelitis. It overlooks the fact that figures of this magnitude might do quite a bit in a number of directions, and it also fails to recognize that, when thousands must be vaccinated to protect one, such seemingly minor indirect risks as broken needles or various accidents, let alone possible induced infection or another disease superimposed on a reaction, become significant. To choose maximum benefits and ignore the balance, and to choose only direct damage and not total damage, is stacking the cards to the limit.

On an intuitive basis, the game does not seem to be worth the candle. The evidence does suggest some transitory immunity. Presumably many (certainly some) physicians have not used it on their own families, simply because the risk element and benefit values are both present and are both low. Physicians for themselves know the answer to that portentous question faced now by many parents: Is my conscience eased more by having "done everything I could," even though I run into a trouble I might have avoided, or is it eased more by letting well enough alone and gambling on a kind fate which, if unkind, will leave me feeling that "conceivably I might have done so-and-so?" Most physicians, I surmise, know that fate is capricious. I surmise that they will and do take action against it hourly, but that they prefer a capricious fate to meddling when the gambling is really tough. And, incidentally, how would the minor himself vote? It is his life, not his parents' or physician's.

At the end of the season, plus a few months, we shall face a series of Aprils again. There will be tables, figures, and arguments. A majority will be for optimism, from mild to blatant. Great hopes will be expressed. Bromidic phrases about conquests and the greatness of science and billions for research will all be put forth. Few will mention that a large majority of vaccines in history for good and sufficient reasons have failed, but there will be plenty of platitudes about new, bigger, and better vaccines. Few of the figures will be meaningful, many will be unintelligible, and hardly any will consider true risk rates: Total damage and total benefit, not the difference between the two. The tremendous numbers of persons who must be inoculated to produce any good, even hypothetical, will be carefully hidden. Another season and presumably the dust will have settled a bit and perhaps evolution can take over what revolution messed up so beautifully. My own expectation is that another five years will see the vaccine gone, but this could be wrong, because, among other reasons, not every failure among vaccines has lost its supporters.

It might be pertinent, in closing, to ask whether anyone has learned anything. Considering the manner of propaganda, how much the public has learned is decidedly dubious. It might even be more gullible another time. In many ways Mr. O'Connor has shown himself to be irked—hardly a penitent attitude. Dr. Salk may not get far in terms of vaccine, but his fellow scientists go ahead to prove a multiplicity of Coxsackie viruses which resemble the poliomyelitis virus in numerous ways, and to demonstrate that there is apparently no such thing as adequately pooling even poliomyelitis viruses for either dead or live vaccine, thus getting a little closer gradually to the essential facts, out of which might eventually come something truly safe and mildly useful, if carefully introduced, slowly, and through the proper channels. There is no such assurance, however. Commercial interests are much chastened, but public health shows itself perhaps as ready as ever to catch on the passing calliope. A good many men in the news business have certainly learned a bit, but how widely effective this learning will become seems doubtful. Uncle Sam tangled up his politicians, who are only samples of the public in this technical matter, in the general confusion with the usual political repercussions; but possibly behind the scenes some of the men in the game have learned that they can afford to be a little independent, if honest, and do not have to follow the expedient path every time. This is not assured, either. By and large, the score perhaps is not without profit—a small one.

MAX S. MARSHALL

Department of Microbiology
University of California Medical Center
San Francisco 22

California MEDICAL ASSOCIATION

NOTICES & REPORTS

Executive Committee Minutes

Tentative Draft: Minutes of the 252nd Meeting of the Executive Committee, San Francisco, Sir Francis Drake Hotel, September 14, 1955.

The meeting was called to order by Chairman Heron in the Cypress Room of the Sir Francis Drake Hotel, San Francisco, on Wednesday, September 14, 1955, at 6:30 p.m.

Present were President Shipman, Speaker Doyle, Council Chairman Lum, Auditing Committee Chairman Heron and Editor Wilbur. Absent for cause, President-Elect Charnock and Secretary Daniels.

A quorum present and acting.

Present by invitation were Messrs. Hunton, Clancy and Gillette of C.M.A. staff; legal counsel Hassard; health insurance consultant Waterson; Drs. Fred O. Cooley and Charles S. Mitchell of Fresno; Dr. John R. Upton, chairman of the Blood Bank Committee.

1. *Central California Blood Bank:*

Drs. Upton, Cooley and Mitchell reviewed the history of the Central California Blood Bank and discussed the operating problems encountered since opening of the institution on June 8, 1955. To date, they reported, the bank has not had sufficient support from various hospitals in Fresno and surrounding counties to permit an efficient operation.

On motion duly made and seconded, it was voted to extend further credit up to $20,000, in the form of a drawing account and with the understanding that the cooperation of at least one Fresno hospital is secured.

On motion duly made and seconded, it was voted to communicate with all Association members in the five-county area, urging their support of Central California Blood Bank.

On motion duly made and seconded, it was voted that the committee go on record as supporting a system of exclusive reciprocity for the Central California Blood Bank in its area; further, that the Blood Bank System, its respective member blood banks and their respective county medical societies support such exclusive reciprocity with Central California Blood Bank.

2. *Rollen Waterson Associates:*

Mr. Waterson discussed the study which he had proposed at an earlier meeting for a review of physician-patient relationships. The study would be designed to establish those areas where improvements might be accomplished through follow-up public relations activities. The study would be made by Stanford Research Associates of Palo Alto.

On motion duly made and seconded, it was voted to approve the making of this study at a cost not to exceed $5,000.

3. *Association of District Hospital Directors:*

Dr. Shipman discussed an invitation he had received, asking the Association to name a committee to meet with representatives of the Association of District Hospital Directors. It was agreed that he accept this invitation, provided the California Hospital Association were also represented.

4. *State Bureau of Vocational Rehabilitation:*

Dr. Shipman reported that some of the voluntary health agencies were taking an interest in the growing program of the State Bureau of Voca-

SIDNEY J. SHIPMAN, M.D. . . . . . . President
DONALD A. CHARNOCK, M.D. . . . President-Elect
JAMES C. DOYLE, M.D. . . . . Speaker
PAUL D. FOSTER, M.D. . . . . Vice-Speaker
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tional Rehabilitation, especially in view of some of the problems raised by the medical program of the bureau. On motion duly made and seconded, it was voted to authorize the President and the Council Chairman to appoint a committee to review the medical setup of this agency and report back.

Adjournment:

There being no further business to come before it, the meeting adjourned at 10:45.

Ivan C. Heron, M.D., *Chairman*
John Hunton, *Acting Secretary*

In Memoriam

Boyers, Luther M. Died in San Francisco, September 19, 1955, aged 67, of myocardial infarction. Graduate of the Stanford University School of Medicine, Stanford University-San Francisco, 1916. Licensed in California in 1916. Doctor Boyers was a member of the Alameda-Contra Costa Medical Association.

✣

Crabtree, Peter. Died in San Diego, September 8, 1955, aged 42, of carcinoma of the kidney. Graduate of the University of Michigan Medical School, Ann Arbor, 1937. Licensed in California in 1941. Doctor Crabtree was a member of the San Diego County Medical Society.

✣

Heaney, N. Sproat. Died in Los Angeles, September 25, 1955, aged 75. Graduate of Rush Medical College, Chicago, Illinois, 1904. Licensed in California in 1944. Doctor Heaney was a member of the Los Angeles County Medical Association.

✣

Low-Beer, Bertram V. A. Died in Larkspur, September 25, 1955, aged 55. Graduate of Deutsche Universitat Medizinische Fakultat, Prague, Czechoslovakia, 1924. Licensed in California in 1943. Doctor Low-Beer was a member of the San Francisco Medical Society.

Roberts, William H. Died in La Jolla, September 19, 1955, aged 83. Graduate of the Cooper Medical College, San Francisco, 1894. Licensed in California in 1894. Doctor Roberts was a retired member of the Los Angeles County Medical Association, the California Medical Association, and an associate member of the American Medical Association.

✣

Shreck, John A. Died in Redlands, September 3, 1955, aged 91. Graduate of Rush Medical College, Chicago, Illinois, 1891. Licensed in California in 1902. Doctor Shreck was a retired member of the San Bernardino County Medical Society, the California Medical Association, and an associate member of the American Medical Association.

✣

Torell, Gerhard J. Died in Los Angeles, September 2, 1955, aged 62, of uremia. Graduate of Northwestern University Medical School, Chicago, Illinois, 1916. Licensed in California in 1924. Doctor Torell was a retired member of the Los Angeles County Medical Association, the California Medical Association, and an associate member of the American Medical Association.

✣

Wahrhaftig, Myer J. Died in Oakland, September 15, 1955, aged 67, of subarachnoid hemorrhage. Graduate of the Oakland College of Medicine and Surgeons, 1917. Licensed in California in 1917. Doctor Wahrhaftig was a member of the Alameda-Contra Costa Medical Association.

memo from: medical review and advisory board

OF THE CALIFORNIA MEDICAL ASSOCIATION

What Price Medical Malpractice Insurance?

JOSEPH F. SADUSK, JR., M.D., Oakland

THE PROBLEMS associated with medical malpractice insurance are obvious to any physician, what with the rapid and progressive increase in premiums for such insurance during the past ten years. Articles on the subject have appeared in medical journals and other types of publications; some of these articles are sound, others reveal that the individual writing the article has little or no comprehension of the basic factors involved in this field.

The purpose of the present article is to discuss in general fashion the various factors playing a role in insurance coverage of this type. This article is written from physician to physician; therefore the details will be presented along the lines of interest to physicians rather than from the viewpoint of attorneys or insurance experts.

It is, first, important to realize that this problem is not confined to California. Indeed, the problem is nationwide, with particular emphasis recently in the states of New York, Illinois, Florida, Connecticut, Maryland and the District of Columbia. In some of these states the insurance carrier covering a group program has cancelled its group coverage because of increasing hazard in which the ratio of losses to premiums (loss ratio) continued to increase despite the rapid increase in premiums.

As an example of the increasing hazard in California, statistics show that for a group Northern California malpractice program during the period 1946 through 1951, one of every twelve physicians had a malpractice claim of some type levied against him each year. Breaking this figure down further, it is noted that one of every fifty-two physicians in the program had an actual malpractice suit filed against him each year, while one of every fourteen physicians had a serious allegation presented by a patient that required investigation by the insurance carrier. As a result, premiums in this group program have risen almost 200 per cent during the eight-year period from 1946 to 1954.

• The Medical Review and Advisory Board has been established as a committee of the Commission on Professional Welfare of the California Medical Association to make studies and recommendations toward solution of the growing problems of professional liability insurance and malpractice actions in California. The members of the Board are: Joseph F. Sadusk, Jr., Oakland, Chairman; Wilbur Bailey, M.D., Los Angeles, vice-chairman; Howard W. Bosworth, M.D., Los Angeles; H. I. Burtness, M.D., Santa Barbara; Paul W. Frame, Jr., M.D., Sacramento; Verne G. Ghormley, M.D., Fresno; Carl M. Hadley, M.D., San Bernardino; Joseph J. O'Hara, M.D., San Diego; William F. Quinn, M.D., Los Angeles; Rees B. Rees, M.D., San Francisco; and Bernard Silber, M.D., Redwood City; Mr. Rollen Waterson, 564 Market Street, San Francisco 4, is executive secretary, and Mr. Howard Hassard is legal counsel.

The growing dissatisfaction of insurance carriers with the field of medical malpractice insurance is disturbing. More and more carriers are dropping out of this type of insurance. Some carriers, realizing that this has been a losing field, are only offering the insurance to a physician if he permits the carrier to sell him other insurance such as automobile insurance, home insurance, personal liability insurance and so forth. This is commonly known as the "package deal."

DISSATISFACTION OF INSURANCE CARRIERS

Factors that make the insurance carrier dissatisfied may generally be classified as follows: (1) The problem of latent liability; (2) The progressive increase in losses in such insurance due to inflation and the increasingly critical attitude of the public, the juries and the courts; (3) The small volume of sales of this type of insurance; and (4) The growing dissatisfaction of physicians with the progressive increase of premiums by means of which the insurance carrier hopes to balance the program.

The latent liability factor is entailed in the long lapse of time between the alleged act of malpractice and to filing of a claim or suit. With automobile liability insurance, the carrier knows at the end of the given policy year or shortly thereafter the entire extent of its liability. With medical malpractice, however, claims for alleged malpractice may come up many years after the incident that is cited as a basis for claim. This is due to the very unfavorable statute of limitations in California which basically provides that a patient may file a suit or claim against a physician one year after the patient has acquired knowledge of an act of malpractice. Basically, this means that the patient has practically his entire lifetime or the physician's lifetime in which to file suit. For instance, if a surgeon inadvertently leaves a clamp in an abdomen during an operation and the patient is told forty years later when a gastrointestinal series is made that such a clamp is present, the patient has one year thereafter to file a suit. Consequently, it is extraordinarily difficult for insurance carriers to predict losses with any accuracy for a given policy year, since the policy for the year in which the incident occurs is the policy which covers the physician for the rest of his life, regardless of the year in which the suit is filed.

That both the incidence of malpractice claims and size of judgments and settlement costs are increasing is clear not only in California but in other states. For instance, actuarial data in one state reveal that the incidence of malpractice suits per unit number of physicians has increased 100 per cent during the past ten years. Inflation has likewise produced an increase in judgments and an increase in the cost of defense during the same period.

In contrast with other types of insurance, sales in malpractice insurance are relatively small and consequently an insurance carrier would make relatively little profit, even if this type of insurance were profitable. As a result, the average insurance carrier looks upon the selling of malpractice insurance as a "courtesy" or "accommodation" line, rather than as a profitable enterprise.

Another facet of the problem is the growing dissatisfaction of physicians with increasing premium rates. This dissatisfaction is due to the failure of the physician not only to realize the problems involved, but also the fact that such insurance has recently been a losing proposition to the carrier. The Medical Review and Advisory Board has had the opportunity of reviewing financial data for a number of insurance carriers selling malpractice insurance in California. In no instance was the board able to find evidence of even a reasonable profit; indeed, the carriers making information available to the board presented statistics which showed that the insurance coverage was carried at a financial loss during the period studied.

CALCULATION OF PREMIUMS

Medical malpractice insurance premiums, like premiums for other types of insurance, are calculated on the basis of expected losses plus expected expenses. In the best of circumstances where accurate data are available on the history of losses, the insurance carrier takes this financial data into account and adds to it the cost of administering the policy (sales, federal and state taxes, home and district office expenses, and employees' salaries), costs of special investigation, court costs, attorneys' fees, and agents or brokers' commissions (if the company is a stock company) to arrive at a given annual premium. In the case of a stock company, a fair dividend return to the stockholders is included in the expenses. In the case of a mutual company, any profit resulting from a given year's sale of the insurance returns to the buyer either in the form of a dividend or as reduced premiums in future years. In the case of medical malpractice insurance, the calculation of premiums is extraordinarily difficult due to the factors of latent liability, inflation, an increasingly critical attitude of the public, and the generosity of juries in awarding higher and higher judgments. Therefore, medical malpractice premiums are set by an educated guess at the very best in this day of rapidly increasing problems.

"RESERVES"

Many physicians have asked about the question of "reserves." There are generally two types of reserves in any insurance company. First come the general reserves of the company which are generally set aside for catastrophic events and generally depend upon the size of the insurance carrier. Second, are the reserves that are set aside in safe-keeping when a case with possible loss is reported, so that there is a guarantee to the holder of the insurance policy that there will be sufficient money to pay the claim, or judgment in a suit, if and when such payment becomes due. This type of reserve is set up by the company and represents, in the best judgment of the insurance carrier, the amount that the claim or suit will cost, taking into consideration the award to the plaintiff, court costs, attorneys' costs in defending, and costs of special investigation.

Such reserves may vary in amount from less than $100 to even the entire limit of coverage of the physician, depending upon the seriousness and liability of the case. If there is no liability, the reserves will be very minimal, reflecting only the costs of special investigation.

In general, insurance carriers are very skillful in setting up such reserves and in most instances successful claims over a period of one or several years when averaged out for many cases come to within 10 or 15 per cent of the amount originally set aside. When money is set aside in such specific reserves, the money is not necessarily lost to the program. In other words, if the case is successfully consummated in so far as the defendant physician is concerned, the money is taken out of the reserve and is put back into the program, thereby eventually lowering premiums or becoming payable in the form of dividends.

MUTUAL vs. STOCK COMPANIES

There has been much discussion concerning pros and cons of the so-called mutual company versus the stock company. In general, a stock insurance carrier is owned by shareholders, such as any ordinary corporation. These shareholders receive a dividend return on their shares of stock, ranging from two to five per cent, generally. With a mutual company, there are no stockholders; indeed, the policyholders themselves own the company by virtue of their policies. There are no stockholders to pay, and any profits resulting at the end of the year are added to general surplus or returned to the policy holder by the payment of dividends or reduction of premiums during the next year. Also, in general, policies for stock companies are sold through agents or brokers, while policies for certain mutual companies are transacted by salaried company employees.

It is profitless to discuss the pros and cons of the stock versus mutual company, since the matter is one of individual preference. Further, the efficiency, skill, and service of companies is a variable factor. The important point is that the policyholder have his insurance in a reputable, long-established company which will give every assurance of being in the business throughout the lifetime of the physician and that has assets in the United States available for defense and paying claims. Whether the company be stock or mutual is of little concern, and premiums are of secondary consideration.

The important criteria for a physician to consider in selecting a carrier are:

1. Past and future stability of carrier.
2. Adequate reserves of the carrier on deposit in the United States.
3. Group program sponsored and monitored by a county or state medical society.
4. Offering by the carrier of sufficiently high coverage to adequately meet a high judgment.
5. Limitation of "cancellation" clause.
6. Limitation of "exclusion" clauses.
7. Contingent liability coverage (for the acts of a physician's partner).
8. Permanence for yearly renewal of the policy.
9. Absence of hidden additional charges.
10. Sufficient volume of business in the area in which the physician practices to have experienced malpractice claims adjustors and defense counsel.

GROUP PROGRAM vs. INDIVIDUAL POLICIES

There is little or no doubt that a group malpractice program has many advantages over the individual malpractice policy. Here the physician has the basic advantage of group protection and group negotiation with the carrier along the following lines:

1. Prevention of discrimination against physicians whom the carrier considers hazardous risks because of their field of work. (This danger already exists. For instance, there is one insurance carrier which rejects orthopedists, plastic surgeons, and radiologists from coverage.) Who is to be excluded from medical malpractice coverage should be a determination of physicians rather than insurance people.
2. Prevention of the possible control by the insurance company over what procedures the doctor may perform. Such control, preventing the performance of hazardous procedures, may easily be accomplished by the carrier through exclusions in the individual policy or by the device of surcharges so high the physician cannot afford to pay the premium.
3. The medical profession itself may have considerable influence over which claims are to be settled and which are to be defended in a group program. Thus the decision is influenced by analysis of the merit of the claim rather than by expediency.
4. The training of competent claims managers and the team approach to claim handling and defense is accomplished in a group program. Such effective programs are found in groups rather than in individually handled policies.
5. An effective prevention—or safety—program may be set up with a long-term view of reducing the incidence of claims or lessening liability.
6. The collection of loss data by physicians in a group program may be accomplished with the objective of testing the reasonableness of premiums and, most important, of establishing the underlying or real causes of claims.
7. The long-range interests of the profession are served in a group program rather than the immediate

interests of the insurance carrier by physicians influencing and guiding the course of malpractice insurance. The insuror can desert the field of malpractice, but the profession has to live with it. The problem is basically medical in nature rather than insurance.

LOCAL GROUP PROGRAMS vs. NATIONAL GROUP PROGRAMS

What has been said above on the subject of group programs in malpractice insurance does not necessarily apply to national specialty group programs. Several such national programs have been started in the recent past, and one such specialty group already has been suddenly dropped by the insurance carrier involved.

While a group national specialty program may have a cost advantage over individual insurance, this has not yet been demonstrated. On the other hand, national programs are not as advantageous to the physician as a local group program. The principal disadvantage of a national program is that it may lack concentration in an area, and therefore have so few claims that it does not have claims adjustors and attorneys sufficiently well qualified in the field. The handling of medical malpractice problems by the underwriters of national programs may be a very minor part of their total general work.

Another difficulty with the national program is the remoteness of the central claims office from the field of action. Consequently, there may be a tendency on the part of the carrier to settle on the basis of expediency, medical-professional appraisal of the case with coordination of the claims adjustor may be poor, and there may be little or no contact of the physician with the carrier.

Still another problem with national groups is the difficulty in setting up prevention or safety programs because of local state differences, court procedures and legal codes. Malpractice is not within the province of federal courts, but rather is governed by local and state courts—with differences not only among states but also among counties.

AMOUNT OF COVERAGE

With respect to the amount of insurance coverage for medical malpractice, several articles have lately appeared in journals circulated to physicians, recommending low coverage. The argument is that low coverage will discourage claims and will tend to lower the amount of plea for damages or settlement. The author has never known or heard of a single malpractice case in which the plea for damages or settlement was influenced by the amount of insurance coverage. On the contrary, physicians leave themselves open to financial ruin with low coverage.

The problems connected with inadequate coverage have been increasingly great during the past several years. Recently in California two judgments in excess of $200,000 each were rendered. The author has been closely associated with the field of malpractice during the past five years and has seen the near tragedies which result with low coverage. The physician who carries coverage of $5,000/15,000 or $10,000/30,000 is indeed an unhappy person when he is faced with a suit in which the plea may be up towards $200,000, and if damages are awarded, the judgment may well run in the neighborhood of $50,000 to $75,000. The author has seen physicians become almost psychotic persons with the worry and fear of the approaching trial in cases of that kind.

What is considered adequate coverage? The answer is difficult, but of course basically it depends upon the individual's assets, both present and in prospect, to be protected, and also upon his type of practice. In general, a coverage of less than $50,000/100,000 should be considered inadequate in these days, and generally it is well to have coverage of $100,000/300,000. For physicians engaged in particularly hazardous work, such as anesthesiologists, vascular surgeons and neurosurgeons who perform work of a type that, regardless of skill and care, may lead to paraplegia as a complication, coverages up to $300,000/900,000 may be considered desirable. This is based specifically upon the fact that in California within the past few months, verdicts of $225,000 and $250,000 respectively have been awarded by juries for paraplegia following spinal anesthesia in one case and aortogram in another. The day of the $5,000/15,000 and $10,000/30,000 coverage has passed.

THE FUTURE

The future for the physician in medical malpractice insurance is dismal indeed. Each year brings forth new medical discoveries of importance with benefit to the patient; but as medicine progresses so likewise difficulties increase in practice with the use of complicated surgical procedures and the administration of toxic drugs. These lead necessarily to an irreducible number of complications for which the physician may be held responsible, and likewise lead to a greater burden placed upon the physician by the courts and by an increasingly critical public. The great advances in medicine and surgery, as presented to the layman in magazines, have led the public to be supercritical in appraising results. Our grandfathers didn't expect the horse-and-buggy doctor to be perfect, but our contemporaries expect perfection of today's physicians.

To seek aid from the public, the attorney, the legislature, and the courts is not necessarily the answer at this time. The physician must begin the battle himself. As Ford[1] pointed out five years ago, in probably the shortest paper ever published on the subject but nevertheless most revealing, the control of medical malpractice hazards depends upon:

Good faith
Good records
Common sense

Good faith implies that the physician treat his patient with tact and kindness, that he conceal no known difficulty in diagnosis or treatment, and that he advise consultation freely.

Good records means that the physician adequately document his medical records of a patient, carefully record untoward happenings, and make a matter of record the treatment given and advice offered.

Common sense implies that the physician know the vindictiveness of some patients, recognize the hazard connected with the collection of reluctant fees, be aware of the failure of equipment which in turn can produce injury, and finally, use only well established medications and procedures.

REFERENCE

1. Ford, R.: Medical malpractice, New Eng. J. Med., 243:408, Sept. 14, 1950.

CANCER DIAGNOSTIC TESTS: *PENN REACTION*

A Statement by the Cancer Commission of the California Medical Association (May 1954; reaffirmed, October 1955.)

From time to time, announcements appear in the press concerning new alleged cancer tests. Up to the time of preparation of this statement, not one of the numerous "blood tests" for cancer has withstood scientific investigation. Many have given rise to false positive results with distressing consequences to patients and their families.

During the last few months, there has been considerable publicity concerning a so-called seroflocculation reaction for cancer, otherwise known as a Penn or Penn-Dowdy blood test. As far as the Cancer Commission of the California Medical Association can ascertain, the following is the present status of this procedure.

1. The Penn seroflocculation reaction is not a cancer test. It is positive in a majority of patients with cancer *and* in patients who:

(a) recently have had injury or operation;
(b) have active rheumatoid arthritis;
(c) have cirrhosis of the liver;
(d) have fever over 100 degrees;
(e) have active tuberculosis;
(f) are pregnant;
(g) are taking medication such as desiccated thyroid, estrogens, insulin, epinephrine and corticotropin (ACTH).

In other words, this experimental test is positive in many conditions besides cancer, and is therefore nonspecific.

2. In a certain number of patients who actually have cancer, the reaction is negative. The precise number of such false negative reactions and of the previously mentioned false positive reactions is under investigation at present. It will take many months, if not years, to complete this investigation. The minute that reliable information concerning the value of this reaction in independent hands is available, it will be made public.

3. Should this reaction prove to be of such value as to endorse its general use, it would constitute a supplementary item of evidence in the differential diagnosis of cancer. Its responsible proponents do not suggest, as yet, that it deserves any consideration in mass screening of asymptomatic individuals.

4. The National Research Council maintains a Committee on Cancer Diagnosis and Therapy. This committee has prepared criteria for the evaluation of diagnostic procedures. The Cancer Commission of the California Medical Association has recommended that investigators note these carefully prepared criteria and that due attention be given to them in making clinical tests on any type of proposed cancer diagnostic procedures.

5. Pending the discovery of a particular blood or chemical test, citizens are urged to utilize tried and tested methods of cancer detection. The most reliable method consists in physical examination by a qualified physician.

CALIFORNIA MEDICAL ASSOCIATION

Annual Meeting

Ambassador Hotel

LOS ANGELES

April 29 - May 2, 1956

Papers for Presentation

If you have a paper that you would like to have considered for presentation, it should be submitted *to the appropriate section secretary* (see list on this page) not later than November 19, 1955.

Scientific Exhibits

Space is available for scientific exhibits. If you would like to present an exhibit, please write immediately to the office of the California Medical Association, 450 Sutter Street, San Francisco 8, for application forms. To be given consideration by the Committee on Scientific Work, the forms, completely filled out, must be in the office of the California Medical Association not later than December 1, 1955. (No exhibit shown in 1955, and no individual who had an exhibit at the 1955 session, will be eligible until 1957.)

SCIENTIFIC PAPERS

SCIENTIFIC EXHIBITS

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490 Post Street, San Francisco 2

EYE . . . . Channing W. Hale
174 Nemaha Street, Pomona

GENERAL MEDICINE . . . . Harold C. Sox
300 Homer Avenue, Palo Alto

GENERAL PRACTICE . . . . . . T. Jackson Laughlin
10910 Riverside Drive, North Hollywood

GENERAL SURGERY . . . . Orville F. Grimes
U. C. Medical Center, San Francisco 22

INDUSTRIAL MEDICINE AND SURGERY . . . . Homer S. Elmquist
629 So. Westlake Avenue, Los Angeles 57

OBSTETRICS AND GYNECOLOGY . . . Ralph C. Benson
U. C. Medical Center, San Francisco 22

ORTHOPEDICS . . . . . A. B. Sirbu (Acting Secretary)
450 Sutter Street, San Francisco 8

PATHOLOGY AND BACTERIOLOGY . . Justin R. Dorgeloh
378 Thirtieth Street, Oakland 9

PEDIATRICS . . . . Moses Grossman
U. C. Medical Center, San Francisco 22

PSYCHIATRY AND NEUROLOGY . William F. Northrup, Jr.
696 East Colorado Street, Pasadena 1

PUBLIC HEALTH . . . . Wilber J. Menke, Jr.
City Hall, Pasadena 1

RADIOLOGY . . . . Austin R. Wilson
540 North Central Avenue, Glendale 3

WOMAN'S AUXILIARY
TO THE CALIFORNIA MEDICAL ASSOCIATION

LEGISLATION . . . role of the physician's wife

Perhaps nowhere are the complexities and pressures of our present-day American civilization reflected more vividly than in the field of legislation. On local, state and national levels there are tens of thousands of bills introduced at each session of our various legislative bodies. These bills reflect the needs and "special interests" of countless groups. Many of these bills are excellent and necessary; many are potentially harmful. All of them are of interest and concern to all citizens. And some of them are of vital importance to the medical profession.

How can the busy physician possibly keep abreast of this current legislation? It is obviously beyond his scope to read and interpret the 11,914 bills, for instance, that were introduced in the first session of the 84th Congress—or the 6,227 measures introduced into the California State Legislature. It is even a colossal task to read through the 404 Congressional bills that were considered of special importance to the medical profession. Physicians have a legislative study group (the Public Health League) to sift out significant legislation and to keep them well informed and alert to the current legislative problems. This is of prime importance. Of equal importance is that the wives of physicians be well informed and alert.

Indeed, a physician's wife has a double responsibility to keep aware of the complex and changing legislative picture. Not only can she be of immeasurable help in keeping her husband up to date, she can also supply valuable information to her friends and neighbors. Far too many people are in the dark where medical legislation is concerned, and a well informed Auxiliary member is often the one who can present all sides of the picture most effectively.

In recognition of this, your Woman's Auxiliary incorporated a Legislative Committee into its original program. This committee works hand in hand with the legislative committees of the county societies, the C.M.A. and the A.M.A., thus receiving its working information on the broadest possible scale. It also keys its program with that of the legislative committee of the Woman's Auxiliary to the A.M.A. and works with and through the county auxiliaries in disseminating information and formulating local programs.

Keeping abreast of current legislation calls for eternal vigilance, and your Auxiliary has been active almost continually since its inception in 1929. Some years, however, have called forth more significant efforts than others. In 1930 and 1931, for instance, the Auxiliary made an appraisal (working with Mr. Ben Read) of California health laws to acquaint its membership with their workings. In 1936 and 1937, when a threat of socialized medicine appeared, your Auxiliary informed its members of the various aspects of socialized medicine so that they could convey effectively to the public accurate information concerning all that was involved. The following year, the Legislative Committee was active in helping to defeat the Humane Pound Act proposed by the antivivisectionists. In 1948, the Auxiliary again recorded its opposition to socialized medicine. By 1951, our legislative study groups were gathering momentum toward having all members well informed politically.

Our more recent activities have been numerous and complex. Aside from furnishing the pros and cons of current important bills to our members, we have attempted to impress on them the importance of knowing who their representatives are and what they stand for. To this end, we have encouraged our members to acquaint themselves personally with their local candidates, to attend their local legislative sessions and to express their opinions to their representatives in letters, phone calls or telegrams.

The Auxiliary itself keeps in close touch with state legislative bodies. Last year, the California State Legislature, well acquainted with your Auxiliary, commended the Auxiliary (under the able leadership of Mrs. Frederick Miller) as an organization "which has rendered many valuable services throughout the state."

Your Auxiliary works constantly with the C.M.A. whenever an emergency arises. Through the use of letters, phone calls and telegrams when necessary, it makes its voice heard. Key "contact women" in every community stand ready to alert our members when speedy action is needed.

While the Auxiliary's legislative program gives emphasis to bills with primary medical implication, our legislative activities are by no means limited. One of our main objectives is to support good general legislation. To this end, we cooperate with many other interested community groups, such as the Parent-Teachers Association, legislative councils, and the League of Women Voters, in our study and planning. One of our important local activities lies in helping to "get the vote out." Auxiliary members have worked most successfully with local registration bureaus in setting up and staffing registration booths in medical buildings and in hospitals.

The Auxiliary legislative objectives call for the "promotion of legislation that will advance the kind of medical care beneficial to the health of all the people" as well as for opposition to "legislation with detrimental medical implications." On our study agenda for 1956 are the four subjects following: (1) Social Security—disability coverage; (2) the Jenkins Keogh Bills; (3) Reinsurance; (4) the Bricker Amendment. In studying the issues involved, we will attempt to apprise ourselves of *all* phases of the problems. We believe that only by considering the many sides of a controversial picture can we form an intelligent, unbiased opinion.

NEWS & NOTES

NATIONAL • STATE • COUNTY

LOS ANGELES

Dr. James B. Johnson of Beverly Hills was elected vice-president of the American Society of Plastic and Reconstructive Surgery at a meeting of the organization held recently at Atlantic City, New Jersey.

* * *

In cooperation with the American Psychiatric Association, the Department of Psychiatry of the U.C.L.A. School of Medicine and the University of California Extension have announced plans for a two-day western regional research symposium on the **"Application of Basic Science Techniques to Psychiatric Research,"** to be held in Los Angeles, January 26 and 27. The course will be open to psychiatrists, psychologists, psychiatric social workers, psychiatric nurses and others with the consent of the course chairman, according to Thomas H. Sternberg, M.D., assistant dean for postgraduate medical education at U.C.L.A. Requests for information and registration blanks should be addressed to Dr. Sternberg at the University of California School of Medicine, Los Angeles 24, California.

* * *

Dr. Lawrence H. Herman of Monterey Park, an instructor in cardiology at the University of Southern California School of Medicine, has been appointed an associate clinical professor at the institution.

* * *

The University of Southern California was among the recipients of grants recently announced by the **National Foundation for Infantile Paralysis** to aid in research and in training for personnel for therapy. The institution was allotted $19,092 to schedule courses for graduate and undergraduate occupational and physical therapy students in treatment of poliomyelitic patients, under direction, respectively, of Angeline A. Howard, chairman, department of occupational therapy, and Charlotte W. Anderson, chairman, department of physical therapy.

SAN BERNARDINO

Dr. Frank C. Melone of Ontario took office as president of the San Bernardino County Medical Society at the annual meeting of the society, held in October. He succeeded Dr. H. R. Morris of Redlands. Dr. Ben D. Miano of San Bernardino was elected president-elect. The new vice-president is Dr. Phillip Savage of San Bernardino. Dr. Wendell L. Ogden, of Highland, was elected secretary-treasurer.

GENERAL

At the annual meeting of the **State Board of Medical Examiners** in Sacramento, held October 20, 1955, the following officers were elected for 1956: President, Justin J. Stein, M.D., Los Angeles; vice-president, Clayton Mote, M.D., San Francisco, and secretary-treasurer, Louis E. Jones, M.D., Sacramento.

* * *

The Tenth Annual University of Florida Midwinter **Seminar in Ophthalmology** and Otolaryngology will be held at the Sans Souci Hotel in Miami Beach the week of January 16-21, 1956. The lectures on ophthalmology will be presented on January 16, 17 and 18, and those on otolaryngology on January 19, 20 and 21. A midweek feature will be the Midwinter Convention of the Florida Society of Ophthalmology and Otolaryngology on Wednesday afternoon, January 18, to which all registrants are invited.

* * *

The Tenth Annual **Symposium on Fundamental Cancer Research** will be held on March 29, 30 and 31 at The University of Texas M.D. Anderson Hospital and Tumor Institute in the Texas Medical Center, Houston.

* * *

The U. S. Public Health Service recently announced ten grants totaling $295,367 to start a special program of **research into air pollution problems.** Three grants for a total of $62,141 were awarded to investigators in California: $10,982 to Paul Kotin, University of Southern California for determination of acute and subacute biologic effects of air pollutants; $36,784 to Hurley L. Motley, University of Southern California, for investigation of the effect of breathing smog air on pulmonary function in man, and $14,375 to Bernard D. Tebbens, University of California, Berkeley, for particulation of air pollutants resulting from combustion.

POSTGRADUATE EDUCATION NOTICES

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association. In order that they may be listed here, please send communications relating to your future medical or surgical programs to: Mrs. Margaret H. Griffith, Assistant Director, Postgraduate Activities, California Medical Association, 417 South Hill Street, Los Angeles 13.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Dermatology in General Practice, November 16 to December 21. Twelve hours. Fee: $30.00.

Electrocardiography, Wednesdays and Fridays, November 30 to December 16. Twelve hours. Fee: $20.00.

In Santa Barbara: New Diagnostic Procedures and Therapy in Medicine, Wednesday, November 30 (afternoon and evening). Fee: $17.50.

Dermatology 1956, Friday and Saturday, June 22 and 23, 1956. Twelve hours.

Contact: Thomas H. Sternberg, M.D., Assistant Dean for Postgraduate Medical Education, U.C.L.A., Los Angeles 24.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

In San Francisco:

Ophthalmological Conference—December 5 to December 7.

Conference on Dermatology for General Practitioners, January 13 and 14, 1956. Twelve hours. Fee: $40.00.

In Santa Rosa: Symposium on Heart Disease, Wednesday, November 16. Seven hours. Fee: $12.50. Sponsored by Sonoma County Heart Association and in cooperation with Stanford University School of Medicine.

Contact: Seymour M. Farber, M.D., Head, Postgraduate Instruction, Office of Medical Extension, University of California Medical Center, San Francisco 22.

UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES

In Los Angeles:

No. 834: Electrocardiography, Friday, Saturday and Sunday, February 10, 11, 12. All day. Fee: $50.00.

Contact: Phil R. Manning M.D., Director of Medical Extension Education, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles 33.

COLLEGE OF MEDICAL EVANGELISTS

Anesthesiology. Daily, full-time, four months, beginning each four months. Fee: $300.

Medical Clinics, Tuesdays, January 3 to March 20, 1956. Eighteen hours. Fee: $50.00.

Differential Diagnosis of Internal Diseases, Tuesdays, January 3 to March 20, 1956. Eighteen hours. Fee: $50.00.

General Urology, Wednesdays, January 4 to February 29, 1956. Thirteen and one-half hours. Fee: $35.00.

Management of Infertility, Thursday, January 5 to February 23, 1956. Twelve hours. Fee: $30.00.

Dermatology, Tuesdays, January 10 to March 27, 1956. Eighteen hours. Fee: $40.00.

Varicose Veins and Surgical Diseases of the Peripheral Vascular System, Tuesdays, January 17 to February 28, 1956. Fourteen hours. Fee: $30.00.

Otolaryngology, Tuesdays, February 7 to March 27, 1956. Twelve hours. Fee: $30.00.

Gynecology, Wednesdays, March 21 to May 23, 1956. Ten hours. Fee: $30.00.

Operative Surgery, Wednesdays, March 21 to June 6, 1956. Thirty hours. Fee: $200.00.

Thoracic Surgery, Wednesdays, April 18 to May 9, 1956. Eight hours. Fee: $30.00.

Diseases and Injuries of Bones and Joints, Daily, July 2 to July 31, 1956. Full time. Fee: $100.00.

Contact: Chairman, Section on Graduate and Postgraduate Medicine, College of Medical Evangelists, 1720 Brooklyn Ave., Los Angeles 33.

CALIFORNIA MEDICAL ASSOCIATION POSTGRADUATE INSTITUTES

SOUTHERN COUNTIES in association with the University of Southern California School of Medicine, January 19-20, 1956, at Laguna Beach.

WEST COAST COUNTIES in association with College of Medical Evangelists, March 1-2, 1956, in Carmel.

NORTH COAST COUNTIES in association with University of California School of Medicine, San Francisco, April 5 and 6, 1956, in Santa Rosa.

SAN JOAQUIN VALLEY COUNTIES in association with the University of California School of Medicine, Los Angeles, May 10 and 11, 1956, in Fresno.

SACRAMENTO VALLEY COUNTIES in association with Stanford University School of Medicine, June 21, 22, 1956, at Lake Tahoe.

Contact: C. A. Broaddus, M.D., Director of Postgraduate Activities, P.O. Box A-1, Carmel, California, or Mrs. Margaret H. Griffith, Assistant Director, Postgraduate Activities, California Medical Association, 417 So. Hill St., Los Angeles 13.

Medical Dates Bulletin

NOVEMBER MEETINGS

STOCKTON POSTGRADUATE STUDY CLUB, State Hospital, Stockton, November 17.

Contact: L. Armanino, M.D., 2633 Pacific Avenue, Stockton.

AMERICAN MEDICAL ASSOCIATION Clinical Session, 1955, in Boston, November 29 to December 2, 1955.

CITY OF HOPE MEDICAL CENTER, Newer Developments in the Diagnosis and Treatment of Cancer, November 28, 29, 30. All physicians invited to attend.

Contact: Leo G. Rigler, M.D., City of Hope Medical Center, Duarte, Calif.

MONTEREY COUNTY HEART ASSOCIATION Annual Symposium on Heart Disease, House of Four Winds, Monterey. Fee $10.00 for 2 days, $7.00 for one day, $5.00 for one-half day, November 30 and December 1.

Contact: Edwin W. Tucker, M.D., 1073 Cass Street, Monterey.

DECEMBER MEETINGS

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, December 2, 9:30 a.m.* Prenatal Problems, Departments of Obstetrics, Anesthesia, Pediatrics and Public Health, participating.

REGIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS, San Jose, December 2 and 3.

Contact: Talcott Bates, M.D., 920 Cass Street, Monterey.

CALIFORNIA HEART ASSOCIATION semiannual meeting, Hotel Statler, Los Angeles, December 3.

Contact: Alan Croft Blanchard, Field Director, 1428 Bush Street, San Francisco 9.

AMERICAN COLLEGE OF CHEST PHYSICIANS, Ambassador Hotel, Los Angeles, December 5-10. Los Angeles Postgraduate Course on Diseases of the Chest.

Contact: Alfred Goldman, M.D., Chairman, 416 North Bedford Drive, Beverly Hills.

JANUARY MEETINGS

LOS ANGELES MIDWINTER MEDICAL CONVENTION, January 3, 4, 5, 1956, Biltmore Hotel, Los Angeles. An 85th anniversary, sponsored by Los Angeles County Medical Association.

Contact: Jerry L. Pettis, Public Relations Counsel, Los Angeles County Medical Association, 1925 Wilshire Blvd., Los Angeles 57. Telephone DUnkirk 5-1581.

LOS ANGELES COUNTY MEDICAL ASSOCIATION "Cavalcade of Health and Medical Progress," Shrine Auditorium, Los Angeles, January 6 to 15.

Contact: Bert Fitzgerald, business manager, Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles 57.

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, January 14, 1956.* Pediatric Surgery, with special emphasis on diagnosis, referral, preparation, pre- and postoperative care.

FEBRUARY MEETINGS

ALAMEDA-CONTRA COSTA MEDICAL ASSOCIATION Graduate Assembly. "The Dynamics of Endocrine Disease," Highland-Alameda County Hospital, February 10.

Contact: L. W. Kinsell, M.D., Instructor for Metabolic Research, Highland-Alameda County Hospital, Oakland.

American Board of Surgery Examinations, Part II, Los Angeles, February 13 and 14. Closing date is December 1.†

American Board of Surgery Examinations, Part II, San Francisco, February 16 and 17. Closing date is December 1.†

SPRING MEETINGS

Medical Alumni Committee of Children's Hospital, San Francisco, March 17, 1956.* Morning: Dermatology. Afternoon: Nutritional problems peculiar to modern pediatrics.

California Tuberculosis and Health Association, California Trudeau Society and California Sanatorium Association Annual Meeting, Sheraton-Palace Hotel, San Francisco, April 5, 6, 7.
Contact: E. L. Daggett, director, Public Relations, California Tuberculosis and Health Association, 130 Hayes Street, San Francisco 2.

Medical Alumni Committee of Children's Hospital, San Francisco, April 14, 1956.* Behavior Problems and Childhood Psychiatry.

American College of Physicians 37th Annual Session, Los Angeles, April 16-20, 1956.
Contact: George C. Griffith, M.D., General Chairman, Box 25, 1200 N. State St., Los Angeles 33.

Hawaii Medical Association Centennial Celebration. Scientific sessions, historical pageant of 100 years of medicine in Hawaii, social festivities, etc., Honolulu, April 22 to 29.
Contact: Hawaii Medical Association, 510 S. Beretania Street, Honolulu 13, Hawaii.

California Medical Association Annual Meeting, Ambassador Hotel, Los Angeles, April 29 to May 2, 1956.
Contact: John Hunton, Executive Secretary, 450 Sutter St., San Francisco 8, or Ed Clancy, Director of Public Relations, 417 S. Hill St., Los Angeles 13.

California Heart Association Annual Meeting and Scientific Session, La Playa Hotel, Carmel, May 18 to 20, 1956.
Contact: Alan Croft Blanchard, field director, California Heart Association, 1428 Bush Street, San Francisco 9.

Western Branch, American Public Health Association Annual Meeting, Salt Lake City, Utah, May 30 to June 2.
Contact: Mrs. L. Amy Darter, secretary-treasurer, at State Public Health, 2151 Berkeley Way, Berkeley 4, California.

**For registration or information, contact:* Gertrude Jones, M.D., Children's Hospital, San Francisco.

†*For information, contact:* John B. Flick, M.D., 255 S. Fifteenth Street, Philadelphia 2, Pa.

INFORMATION

Maternity Practices in Hospitals in California

THE FOLLOWING REPORT summarizes two regional conferences on maternity and newborn care in general hospitals held in Santa Barbara, October 22 and 23, 1954, and in Sonoma, November 5 and 6, 1954. The purpose of these conferences was to analyze the laws, practices and traditions which establish prevailing standards of maternity care in general hospitals. The conferences resulted from recognition that present high standards of maternity care are accompanied by practices which tend to make inflexible the utilization of space and personnel in obstetrical services of general hospitals. This inflexibility tends to reduce the maximum utilization of physical facilities and staff, with resultant high patient-day costs.

Approximately 35 individuals participated in each conference. Participants included obstetricians, pediatricians, physicians in general practice, and in public health, hospital administrators, nurses in obstetrics, in administration and in public health, members of faculties of universities, and staff members of the State Department of Public Health.

In this report it should be recognized that there is unanimity that high standards of obstetrical care are essential, but unanimity does not always exist as to what is necessary to maintain these high standards. This report provides a compilation of the conferees' best judgment on major maternity practices in hospitals for the advice and guidance of those responsible for patient care in hospitals.

In some instances, conclusions reached by the conference are at variance with current legal requirements which are contained in regulations set forth by this Department under the Hospital Licensing Act. In other instances, while conclusions are not at variance with the law, physicians and hospital administrators may wish concurrence of national organizations, such as the Joint Commission on Accreditation of Hospitals and the American Academy of Obstetrics and the American Academy of Pediatrics, before modifying present practices to comply with conclusions reached in the conferences. The State Department of Public Health intends to bring conference recommendations which are contrary to current legal requirements before the Hospital Advisory Board and State Board of Public Health in public hearings to determine whether legal regulations should be changed to comply with conference recommendations. The Department also intends to bring conference recommendations to the official attention of technical groups such as the Joint Commission on Accreditation of Hospitals, American Academy of Pediatrics, and the American Academy of Obstetrics.

Copies of the complete report are available by writing the State Department of Public Health, 2151 Berkeley Way, Berkeley 4.

BACKGROUND, OBJECTIVES, SCOPE, AND ORGANIZATION OF CONFERENCES

A. Background

Serious economic problems are created in operating obstetrical departments under currently accepted laws and customs because of low space utilization and limited flexibility of personnel in obstetrical departments of general hospitals. The State Department of Public Health became interested in certain traditions of maternity service—particularly the segregation of maternity patients from others in the hospital—in its activity of assisting communities throughout the state to plan and develop hospital facilities and through administration of the hospital licensing program.

Review of bed usage experience in existing hospitals disclosed low average occupancy in maternity departments, compared with a much higher occupancy in other hospital departments. Statistics in a recent study showed that average occupancy of acute hospitals in California is 74 per cent. In these hospitals, however, the average occupancy in the maternity service is 53 per cent and the average in other services is 78 per cent. If maternity departments could operate at 78 per cent capacity, 3,713 obstetrical beds properly distributed throughout the state could accommodate all maternity cases. At present there are 5,866 maternity beds, or approximately 2,000 more than could be utilized at an average occupancy rate of 78 per cent.

Based on State Department of Public Health estimates, California has only two-thirds of the general hospital facilities it needs to serve the state's rapidly increasing population. As new hospitals are built, they invariably include maternity departments. The economic consequences in cost of construction and operation of maternity facilities, which have relatively low utilization, are a serious matter which, over a number of future years, involves many millions of California residents' dollars.

Conclusions and recommendations of the Conferences on Maternity Practices of Hospitals in California. Prepared by Bureau of Hospitals, State Department of Public Health.

Some maternity departments, because of their isolated location from other parts of the hospital, have actually closed. Because hospitals have been required to maintain separate delivery rooms and operating rooms, the low volume of deliveries in some hospitals has caused elaborately equipped delivery rooms to stand idle much of the time. Many hospitals reported that their maternity departments were consistently operating at a deficit.

Study shows that the same general problems exist in hospitals of all sizes, and while shortened patient stay has contributed to the problem of low maternity census, it is less significant in terms of long-range use of obstetrical area than the inflexibility which results from current practices. While some hospitals, in an effort to overcome the deficit and to meet the demand for more medical and surgical beds, have admitted other types of patients to the maternity section when the census in the department is low, others question the advisability of this practice. After consideration, it was determined working conferences would provide the best method of reviewing the problem and its many implications. It was thought that if experienced and well qualified participants were selected, certain conclusions regarding safe, efficient, and more economical care might be reached, and would point out the need for studies and further evaluation of certain practices and procedures.

B. Objectives of the Conference

Objectives for the conference were:

1. To develop suggestions and recommendations for high quality of maternity care;

2. To determine the importance of strict segregation of maternity departments;

3. To evaluate present procedures and practices from standpoint of safety, efficiency and economy;

4. To designate certain procedures or practices where further study is indicated;

5. To consider how recommendations of the conference can be implemented.

C. Scope and Organization of the Conference

In developing plans for these working conferences, the Department consulted a steering committee made up of representatives of the California Medical Association, Northern California Pediatric Society, California Hospital Association, California League for Nursing, California Conference of Local Health Officers, and University of California School of Public Health.

The number of participants selected for each conference by the organizations which they represented, included: Twelve physicians representing the California Medical Association, Academy of General Practice, California chapters, Academy of Pediatrics, Obstetrical Societies, and California Medical Schools. Five representatives of the California Hospital Association, five of the California League for Nursing, two of the California Osteopathic Association, two of the University of California School of Public Health, five of the California Conference of Local Health Officers and five of the State Department of Public Health.

The two-day conferences were organized so that the entire group met together at the opening session and the closing session, but the participants were divided into five small groups for the other meetings.

In the closing session, each group summarized and presented the conclusions of one of five discussion topics as they had been prepared by each of the other groups. By this method, it was possible to present all recommendations of all groups in a brief and concise manner in the limited time available.

RECOMMENDATIONS AND CONCLUSIONS OF THE CONFERENCE

The following report summarizes the conclusions and recommendations of the conference and is divided into the five areas of maternity service, in accordance with the organization of the conference:

I. Admission and Labor
II. Delivery
III. Maternity Patient Unit
IV. Nursery
V. Rooming-in

A. Admission and Labor

Admission Routines. Most of the groups at both conferences believed that no special dangers were encountered in the usual admission procedures of maternity patients, regardless of the stage of labor. Several groups stressed the importance of avoiding delay of admission, particularly in county hospitals where maternity patients are admitted through the same channels as all other patients. While the danger of contracting an infection in the process of admission is probably minimal, there is psychological reason, as well as obstetrical reasons, for getting the patient admitted to her room or to the labor room expeditiously.

Dealing with Patients with Communicable Disease. How to deal with a patient who, upon admission, has a communicable disease or has been exposed to one, was not agreed on by all participants. While all agreed that isolation of some kind was necessary, there was divided opinion as to whether she should be isolated in or out of the maternity unit.

Whether the patient actually had the communicable disease or had merely been exposed to communicable disease should be considered. If the exposure was to a disease not ordinarily contracted by adults, the need for isolation would be lessened. The degree of transmissibility, the available facilities within the hospital (both in and out of the maternity department) and the availability of skilled nursing personnel were factors that were mentioned at the conference. Conference opinion was that placing the patient in a private room under observation in the maternity unit after delivery would be adequate in most cases. Many members felt that delivery could be carried out in the delivery room without creating hazards for other patients.

It was recommended in both conferences that a woman exposed to communicable disease who delivered prior to admission constituted minimal danger and should be admitted to the maternity department. Observation for a period of 24 to 48 hours in a single room in the maternity unit would be adequate to protect the other patients from possible infection. Rooming-in was suggested as one way of handling the infant during this observation period. The suspect nursery within the unit was the other possibility.

Labor Rooms. It was agreed by the participants that labor rooms are desirable for all hospitals accepting maternity patients, although not from the standpoint of protection from infection. Technical efficiency, convenience for doctors and nurses, and psychological benefits to the patients were listed as reasons for labor rooms.

Ideally, the labor rooms should be in close proximity to the delivery room, but the conferees recognized the advantages of having labor rooms close to the patient area in small hospitals where there is no regularly assigned labor room personnel, even though physical segregation of the labor patient from other patients also is desirable.

Staffing the Labor Rooms. It was recommended that the best available qualified nursing personnel be used in the care of patients in labor. All conferees expressed the importance of this phase of maternity care and stated that when skilled personnel is limited, it should be utilized in the labor room.

Presence of Husband in Labor Room. Both conferences recommended that the husband should not be excluded from the labor room if his presence is acceptable to the physician and the patient. Unless the labor patient is in a single room, some means of maintaining patient privacy is desirable.

Whether it is necessary for the visitor to be gowned was not resolved. Some did not feel that gowning is necessary from the standpoint of preventing infection, but did feel that it would serve a psychological purpose.

B. Delivery

Separate Delivery Rooms. It was recommended that separate delivery rooms be required in all but the very small hospitals. Reasons for this conference recommendation were not based on preventing the spread of infection, but rather for technical efficiency, convenience, availability, ease of staffing, and maintaining harmonious staff relationships. Most conferees agreed that since sterile aseptic technique is observed in surgical procedures and in deliveries, there is no serious danger of spreading infection to either the maternity patient or surgical patient if the same room is used. It was felt that in hospitals where space could always be available for deliveries, some flexibility should be provided so that delivery rooms and operating rooms might be used for whatever procedure was necessary.

Separate Clean-Up Rooms. It was recommended by part of the groups that separate clean-up rooms for operating rooms and delivery rooms should be provided. Where separate staffs are maintained, it would be particularly desirable to maintain separate work rooms. One reason given was the possibility of spreading infection from surgical to obstetrical patients.

Separate Lockers, Toilets and Showers. It was recommended that separate lockers, toilets and showers were not necessary for surgical and obstetrical personnel, either doctors or nurses.

Nursing Staff in Delivery Room. It was generally agreed that while a specialized nursing staff does assure safer and more expert care, no infection hazards are created when the same staff serves delivery and surgery or the delivery room and patient units. Good technique of personnel was stressed as being of most importance.

Presence of Husband in Delivery Room. It was generally agreed in the conferences that the husband or any other relative of the patient should not be allowed in the delivery room. However, there were some conferees who held the opposite view.

Delivery Room Techniques. It was recommended that the present techniques and procedures usually followed in delivery rooms were adequate and desirable. None were listed as being too rigid or too lax.

C. Maternity Patient Unit

Segregation From Other Patients. It was generally recommended by the conferences that absolute segregation from other patients is not necessary for safe and adequate maternity care. Most members agreed that segregation is desirable for efficiency of the service. All members stressed the importance of good technique by personnel, regardless of whether or not the patient area is segregated.

A flexible overlap of obstetrical beds with other beds is possible, but the careful selection of other types of patients was repeatedly stressed. This careful selection would limit the types of patients which can be admitted to the same nursing unit.

One group stressed that maternity patients be given priority in the beds designated as "flexible."

Separate Patient Services. It was recommended that in a flexible unit where other types of patients are admitted, the part of that unit which is used for nonmaternity patients need not be provided with separate utility rooms, nurses' station, showers and toilets; however, all patients should be provided with individual equipment such as bedpans, thermometers, washbasins and emesis basins.

Separate Nursing Personnel. All conferees were of the opinion that separate nursing personnel for obstetrical and nonobstetrical patients was highly desirable when both types of patients were in the same unit. The majority of participants felt, however, that where the patients have been carefully selected and there is good technique, safe care can be provided if the same personnel cares for all the patients in the unit.

Traffic Through Maternity Department. It was generally agreed that traffic (visitor and service) through a maternity department does not constitute an infection hazard to maternity patients to any greater degree than to other kinds of patients.

Patients with Postpartum Infections. It was recommended that a patient who had postpartum infection should be retained in the maternity department and should be isolated in a single or semiprivate room. An exception to this practice would be made in the case of the highly transmissible diseases such as chickenpox and measles.

Visitors. It was recommended that visitors should be limited, as much as possible, to include as a minimum the father, and as a maximum not more than two visitors on any one visit. Hours should be restricted and no visitors under 16 years of age should be permitted. Gowning and masking of visitors were not considered necessary.

Visitors should be educated to the objectives of visiting regulations. Use of posters, classes, pamphlets, displays, etc., was suggested as a possible way to accomplish these objectives.

Evaluation of Postpartum Routines. It was recommended that postpartum routines be reviewed and further evaluated. Handwashing technique was stressed by both conferences as being of greatest importance in preventing spread of infection.

D. Nursery

Capacity of Nursery. It was recommended that nursery units should be designed to accommodate eight or nine bassinets. The reasons for the small units were to limit the number of contacts in the event that infection should occur in a nursery and to limit the number of infants who will be cared for by one member of the nursing staff.

Location of Nursery in Maternity Unit. It was recommended that the nursery should be in close proximity to the postpartum rooms. In order that nurseries not be disturbing to postpartum patients, the importance of soundproofing was expressed.

Nurseries for Observation. It was recommended that observation nurseries for babies suspected of having disease should be provided within the maternity unit, regardless of the size of the hospital.

Infants with Diagnosed Infections. It was recommended that infants with diagnosed infection should be immediately transferred from the maternity unit and isolated.

Physical Examinations of Nursery Personnel. It was recommended that all personnel assigned to care of newborn should be properly screened and should have periodic and annual physical examinations, including chest x-rays. General agreement as to need for inclusion of stool cultures and throat cultures in the examination was not reached.

Importance of Good Technique. The consensus was that with good technique the same personnel could care for infants in the "suspect" nursery and in the normal nursery. It was further agreed that the same nursing personnel could care for mothers and the newborn infants.

Return of Infants to Normal Nursery. It was recommended that newborn infants taken from the normal nursery to x-ray rooms or surgery can be safely returned to the normal nursery without endangering the other infants. Some of the participants urged that this practice be followed if adequate pediatric facilities are not available in the hospital. That the "suspect" nursery might be used to accommodate infants being returned from x-ray or surgery was also suggested.

Handwashing Procedure. It was recommended that the procedure of handwashing before and after handling each infant should receive the most emphasis for safe infant care. The conferees recognized that many inconsistencies in this procedure exist, such as duration of handwashing, method of rinsing, drying, and type of soap or detergent used, and it was recommended that this procedure be standardized.

Gowns and Caps. It was recommended that all personnel who enter the nursery should be required to wear gowns and have some type of hair restraint (net or caps).

Masks. It was recommended by most conferees that personnel working regularly in nurseries should not be required to wear masks. Some members, however, considered masks necessary for all nursery personnel. Most were agreed that personnel who entered the nurseries only occasionally, such as maids, orderlies and doctors, should be required to wear masks.

Preparation of Infant Formulas. It was recommended that any clean area convenient to the maternity section and having the necessary facilities may be used for preparation of infant formulas. Furthermore, it was agreed that formulas for all departments, including maternity, communicable disease and pediatrics can be prepared in the same area, even if that area is in the maternity unit. Sterilizing the contaminated bottles from pediatric or other services before they are returned to the obstetrical formula room was considered necessary.

Terminal Heat Method. It was recommended by most of the participants that formulas be prepared by the terminal heat method. However, some members believed the aseptic method was acceptable, particularly since some formula substances could not be subjected to the terminal heat method. Trained personnel under professional supervision is necessary for formula preparation, regardless of the method.

E. Rooming-in

This area of maternity practice was included in order that its influence be presented to the working conference. Because rooming-in in itself is not acceptable by some groups, and is a controversial subject, it was not intended that approval or disapproval of the practice should be sought by the conference. The recommendations, however, reflect the group members' attitude toward the practice, and not much agreement was reached.

Lack of experience with the practice by many members of the group can also be held responsible for the lack of conclusions. The following generalizations are offered as an outcome of the discussions:

It was generally recommended that rooming-in units should consist of quarters for about four mothers and four babies. This was based on the idea that one nurse could probably care for and supervise the care of that number. One group of conferees expressed the idea that single rooms are more adaptable to rooming-in than multi-patient rooms. It was recommended that handwashing facilities be available in every rooming-in unit. It was recommended that nursing personnel be especially trained and interested in the aims and objectives of rooming-in. It was recommended that where rooming-in is practiced, there should be but one visitor—the father or some designated alternate. There was no agreement as to whether or not rooming-in infants can be returned to the normal nursery when it is necessary to remove the baby from its mother. All agreed that it might be a desirable practice to segregate rooming-in infants from infants in the conventional nursery to assure safe care, but not all conferees felt the practice was necessary.

FURTHER STUDY

The following subjects were listed by the conferees as warranting further study:

1. Admitting routines.
2. Rectal examinations of labor patients.
3. Masking by personnel in labor room.
4. Medical and nursing routines in labor room.
5. Single versus multiple patient labor rooms.
6. Ratio of number of labor beds to delivery rooms to maternity beds.
7. Psychological aspects of labor.
8. Anesthesia practices in delivery room.
9. Identification practices of newborn.
10. Cord techniques.
11. Size of nurseries.
12. Types of containers for formulas.
13. Effectiveness of "hand dips" in nurseries.
14. Methods of formula preparation.
15. Breast care routines.
16. Perineal care routines.
17. Early ambulation of postpartum patient.
18. Rooming-in.

THE PHYSICIAN'S *Bookshelf*

CARDIAC AUSCULTATION INCLUDING AUDIO-VISUAL PRINCIPLES—By J. Scott Butterworth, M.D., Associate Professor of Medicine, New York University Post-Graduate Medical School, New York, Maurice R. Chassin, M.D., Assistant Professor of Clinical Medicine, New York University Post-Graduate Medical School, and Robert McGrath, M.D., Associate Professor of Clinical Medicine, New York University Post-Graduate Medical School. Grune and Stratton, Inc., New York, 1955. 111 pages, $4.50.

This small volume was apparently written with two objectives in view: (1) To present the author's technic of the audiovisual method of teaching phonocardiography. (2) To summarize some practical, clinical aspects of cardiac auscultation.

The authors believe that audiovisual methods are needed to teach auscultation because of "the almost intolerable boredom of the student and instructor while waiting for others to listen" and "the reluctance of students to time sounds and murmurs." One may wonder if these are valid reasons for the employment of audiovisual aids. Whether these technics actually improve the students' ability in clinical auscultations at the bedside or merely provide a novelty in the classroom is not commented upon. The audiovisual instrument employed contains a large oscilloscopic screen upon which phonocardiograms can be viewed by a group of students while listening to the sounds through electronic stethoscopes. Tape recordings can be made at the same time to be played back and studied later. The method of using the instrument and the elementary physics of heart sounds are well described.

The authors have failed to attain their second objective for the reader is presented with no more information regarding clinical auscultation than is available in most current textbooks of physical diagnosis. Certain topics of distinct clinical value such as gallop rhythm are superficially treated and there is a notable lack of attention paid to recent studies of the heart sounds in mitral stenosis, pulmonary hypertension and congenital heart disease. The illustrations of phonocardiograms are poor because of the lack of any simultaneous reference tracings such as the electrocardiogram, pulse or apex impulse. Timing lines are absent.

This volume should be of interest to those who wish to employ audiovisual aids in the teaching of clinical auscultation and physicians who are interested in heart sounds.

* * *

THE CARE OF YOUR SKIN—Herbert Lawrence, M.D. Little, Brown and Company, Boston, 1955. $2.50.

While not indicated by the title, this book concerns itself with the problems of acne. It is easily readable and written in a manner which should be understandable to the adolescent and young adult.

The author handles adequately, the emotional and psychologic impact of this disease on the personality of an individual at a stage in life in which facial appearance is most important. The author also suggests simple measures to properly meet this personality disturbance. At the same time, etiologic factors, diet, popular misconceptions and simple treatment are not neglected.

The book definitely has a place in the physician's therapeutic regimen, especially for patients who desire detailed information regarding the cause, prognosis and treatment of this disease.

* * *

THE HYPOPHYSEAL GROWTH HORMONE, NATURE AND ACTIONS—Editors Richmond W. Smith, Jr., M.D., Physician-in-Charge, Division of Endrocrinology, Henry Ford Hospital, Detroit. Oliver H. Gaebler, M.D., Head, Biochemistry Department, Edsel B. Ford Institute for Medical Research, Detroit; and C.N.H. Long, M.D., Sterling Professor of Physiology, Yale University School of Medicine, New Haven. The Blakiston Division, McGraw-Hill Book Company, Inc., New York, 1955. 576 pages, $12.00.

At the Henry Ford Hospital in Detroit, Michigan, on October 27, 28, and 29, 1954, a group of 300 investigators from medical research laboratories in many countries, gathered together to discuss the present status of Hypophyseal Growth Hormone. The results of these three days of discussion are presented in this volume, which contains the text of 30 papers, complete with charts and figures, as well as the general discussion of the reports. The presentations were divided arbitrarily into five sections:

1. The Bioassay Preparation and Properties of Growth Hormone.

2. The effects of Growth Hormone on certain tissues such as bone, joints and kidneys.

3. The effect of Growth Hormone on the utilization of protein, carbohydrate and fat as sources of energy.

4. The effects of Growth Hormone on certain enzyme systems.

5. The effect of Growth Hormone on lactation in cows, and on growth in humans.

The symposium participants, all leaders in Growth Hormone research, presented data and concepts obtained from recent original investigations. Additional data and ideas were added in the general discussions. Thus, the most recent knowledge of the nature and actions of Hypophyseal Growth Hormone is made generally available. The reports cover a variety of Growth Hormone effects, but the studies of the relationship of Growth Hormone to insulin activity and to Diabetes Mellitus, as well as the effects of Growth Hormone on normal, dwarfed and postsurgical human subjects will be of great general interest.

These reports will be of most interest to the clinical investigator, and to those interested in tissue growth. We do not know yet the full importance of Growth Hormone in clinical medicine, but this symposium will represent a landmark and a reference point on the road to a greater understanding of this fascinating and elusive hormone.

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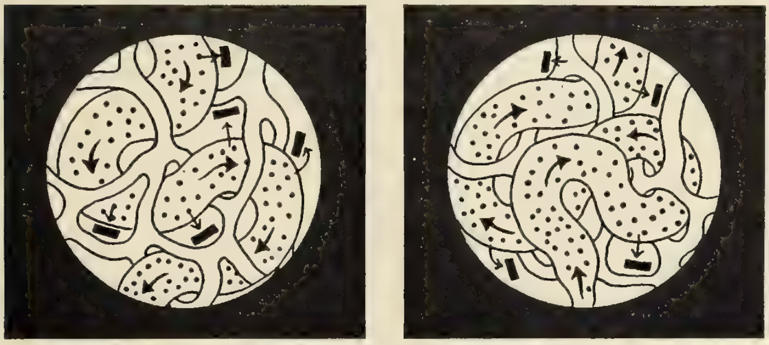

Mictine is believed to act by the selective inhibition of the reabsorption of sodium ions. Thus, the resulting diuresis is characterized by increased quantities of sodium ions and water.

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Administration: The usual dosage for the average patient is one to four tablets daily with meals, in divided doses on an interrupted schedule. An interrupted dosage schedule may be accomplished by giving the drug on alternate days or for three consecutive days and then omitting it for four days.

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Mental Illness Survey Started In West, Alaska and Hawaii

California joined with 10 other western states, Alaska, and Hawaii in a comprehensive survey of training, research and prevention in mental illnesses which started late in August. The survey is a result of a decision by the governors of the 48 states that mental illness is the nation's number one health problem and that surveys are needed to find out what research and training activities are being carried on and what efforts at prevention are being made to meet this problem.

Already two meetings of the representatives of the western states have taken place in Salt Lake City—one in May and one in July. The representatives appointed by the governors determined the scope of the survey and approved the final form of the questionnaire. Hundreds of groups and organizations are to be surveyed as to what they are now doing and what they believe should be done to provide adequate research and enough trained personnel to cope with the vast problems of emotional disorder. These include universities and colleges, state agencies, mental institutions, mental hygiene clinics, city and county welfare agencies, public schools, service and civic organizations, correctional institutions and professional people engaged in mental health activities as a secondary aspect of their jobs.

In March of this year the Council of State Governments called a Western Interstate Conference on Mental Health in San Francisco. This conference adopted a resolution directing the Western Interstate Commission for Higher Education to undertake a survey of the West, and a grant of $61,000 was obtained from the National Institute for Mental Health, U. S. Department of Health, Education and Welfare, to conduct the study. Dr. C. H. Hardin Branch, head of the Department of Psychiatry, University of Utah, is director of the project for which each western state governor has appointed a survey chairman and committee.

Governor Goodwin J. Knight has appointed Dr. Walter Rapaport, Director, California Department of Mental Hygiene, as committee head; Mr. Robert E. Conahan, Comptroller of the Department of Mental Hygiene was selected by Dr. Rapaport to be chairman, and Leland H. Mahood of Pasadena is project director. The committee, members of the Advisory Committee on Mental Health, is composed of Dr. Walter R. Hepner, San Diego; Mrs. Douglas Shearer, Los Angeles; Mr. Roy Frankowski, Los Angeles; Mrs. A. Kenneth Spencer, San Gabriel; Mr. R. J. Stull, San Francisco; George Johnson, M. D., San Francisco; and Walter Treadway, M. D., Santa Barbara.

There are two specific hopes for this survey beyond the actual tallying of research and training activities. First, that some basis might be developed

(Continued on page 72)

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[1] Forsham, P. H., et al.: Paper presented at First Internat. Conf. on Prednisone and Prednisolone, New York, N. Y., May 31-June 1, 1955.

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Questions of Epileptics Marrying Discussed

The question of marriage is a serious problem for many of the 800,000 epileptics in the United States.

The decision to marry is a personal one and can be made only by the two people most intimately involved, Dr. Edward Dengrove and Doris Kulman, both of Asbury Park, N. J., said in a recent issue of *Today's Health*, published by the American Medical Association.

In many cases "blind fear and ancient superstition" or outdated laws forbidding epileptics to marry are the only barrier to it, they said.

Some questions which must be answered before the decision can be made are: Is there a long history of epilepsy in the family? Is the epilepsy caused by some progressive physical disease? Is it amenable to drug therapy? Is the prospective husband or wife emotionally mature enough to face fully the implications of the illness?

Epilepsy is a condition "characterized by sudden disturbances of brain function, resulting in temporary impairment of consciousness," the authors said. The attacks range from major to less spectacular minor ones.

Epilepsy is not contagious, and, although the predisposition to it is inherited, the disease "cannot be

(Continued on page 72)

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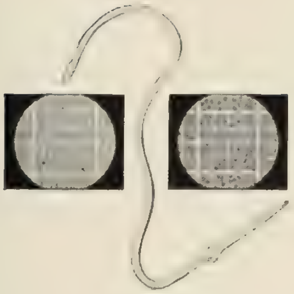

IN CHRONIC LOW-GRADE INFECTIONS—"Cobalt appears to be a valuable drug in the treatment of anemias secondary to chronic diseases."

—Weinsaft, P. P., and Bernstein, L. H. T.: Amer. J. Med. Sc., Vol. 229, (Sept.) 1955.

"In all patients (chronic suppurative infection) a reticulocytosis was observed within 6 days. This was followed by increases in red-cell counts, in hemoglobin values, in blood volume and in total circulating hemoglobin."

—Robinson, J. C., et al.: New England J. M. *240*:749 (May) 1949.

Safe Medication

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—Coles, B. L.: Archives of Disease in Childhood, *30*:150(April)1955.

"None of them [infants] showed harmful effects despite the large doses."

—Quilligan, J. J., Jr.: Texas St. J. Med. *50*:294 (May) 1954.

IN PREGNANCY—"No toxic manifestations associated with its use have been observed."

—Holly, R. G.: Obstet. & Gynecol. *5*:562 (April) 1955.

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One tablet after each meal and at bedtime. Children 1 year or over, 0.6 cc. (10 drops); infants less than 1 year, 0.3 cc. (5 drops) once daily diluted with water, milk, fruit or vegetable juice.

Mental Illness Survey Started In West, Alaska and Hawaii

(Continued from page 64)

for increased interstate cooperation and pooling of resources. For example, instead of each state trying to develop complete training facilities for all mental health personnel, individual states might specialize in one area and, by a reciprocal agreement, allow students to cross state boundaries for certain academic work without penalty of added tuition.

Secondly, the survey hopes to uncover some new unique ideas in the areas of training and research, new kinds of uses of personnel, new set-ups for hospitals, new areas for exploration of treatment, etc. "If the survey only counts hospital beds, patients and doctors, it will be worthless," says Dr. Branch. "We in the West have a unique possibility for new thinking, new regional arrangements, uncovering new leads. Unless we start thinking in new ways, we won't be meeting the purpose of the survey."

Because of the size of California and the number of its professional and lay groups, sampling will be done in many instances. Questionnaires, devised by the survey office in Salt Lake City and by the representatives of state committees, began to go out in California the last week in August. Recommendations from the survey will be made to governors and to state representatives probably in November.

—*California's Health,* Vol. 13, No. 6, Sept. 15, 1955.

Questions of Epileptics Marrying Discussed

(Continued from page 68)

considered primarily an hereditary one," they said. It sometimes is caused by an injury to the brain, or a disease in another organ may react upon the brain and cause it. It also may result from emotional disturbances or alcoholic excesses.

There now are many drugs available which successfully control epilepsy. With careful medical supervision, many epileptics are completely seizure-free, the authors said.

One of the most disturbing problems facing a couple considering marriage is the possibility that their children also may suffer from epilepsy. There is about one chance in 40 that an epileptic will have an epileptic child, they said. "There are many factors which can increase or decrease that risk—a risk no greater than in certain other diseases such as diabetes," they said.

If the epileptic's seizures did not begin until he was an adult, if he is mentally normal, if he shows no other sign of physical disease, and if there is no history of the disease in his prospective mate's family, his chance of having an epileptic child is decreased, they said.

Another problem is that of supporting a family. Many employers are reluctant to hire epileptics because of various workmen's compensation laws,

(Continued on page 76)

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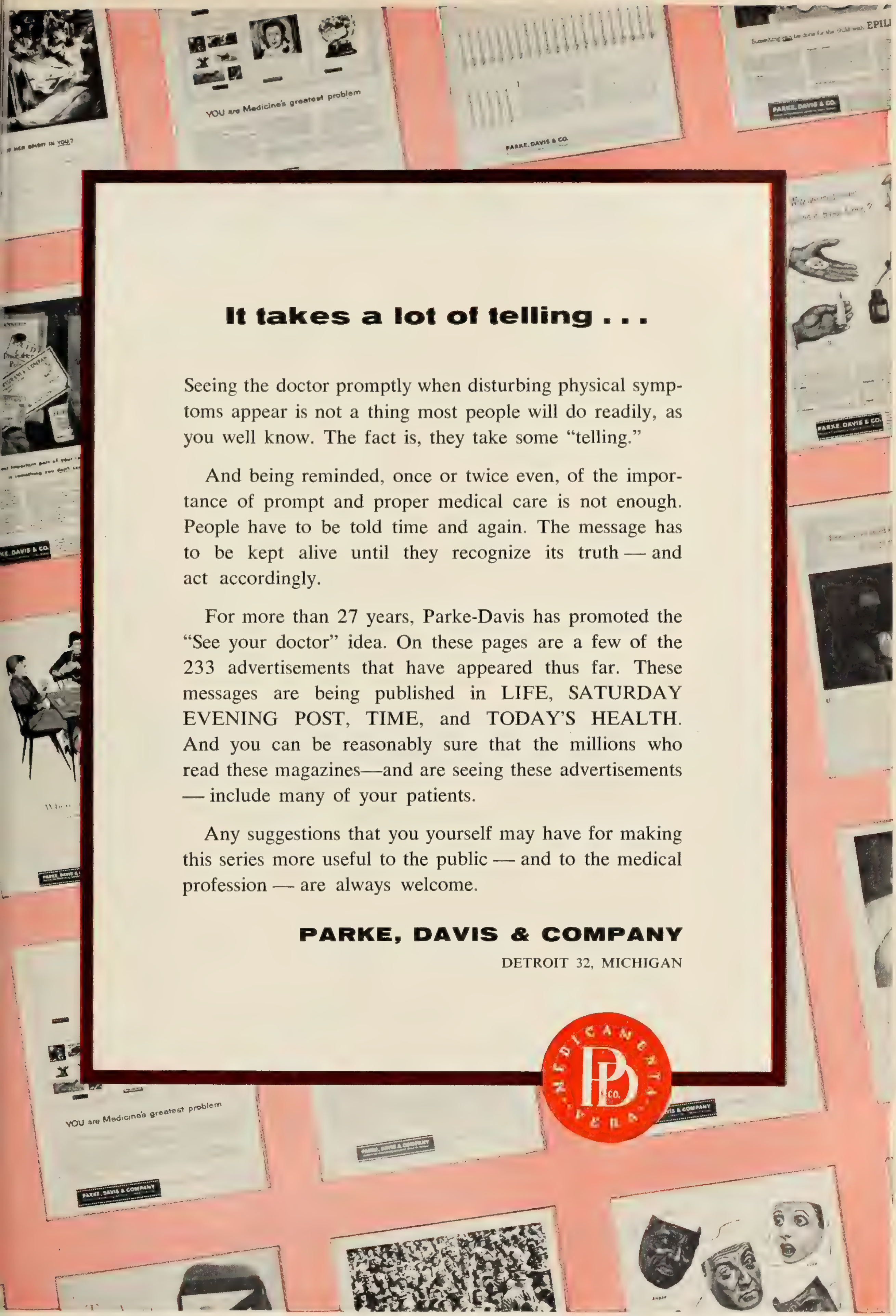
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Any suggestions that you yourself may have for making this series more useful to the public — and to the medical profession — are always welcome.

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Questions of Epileptics Marrying Discussed

(Continued from page 72)

which provide for compensation to the employee injured on the job.

The medicolegal committee of the American League Against Epilepsy recently found that the accident rate among employed epileptics is no higher than that among nonepileptics. The committee recommended that the laws be altered to reduce financial responsibility of the employer in cases where an epileptic employee suffers injury at work because of a seizure.

The authors suggested that the epileptic secure a job in which the safety of other people does not depend upon his "immediate competent performance."

The couple must be realistic enough, the authors said, to recognize that there may be embarrassing incidents and they must be able to face them. The person whom the epileptic is going to marry must be willing to tackle any financial problems that might result from disclosure of the illness.

Marriage itself has no effect on the disease, nor does childbearing. "Like most other people, the epileptic fares best and improves most when he is occupied with work he enjoys and when his personal life is happy," they said.

"It would be far easier for those who are faced with so difficult a decision if only the public were more aware of the particular problems of the epileptic, and if some of the discriminatory practices which prevail in employment, in education, and in various state laws were discontinued," they concluded.

New Blood Transfusion Plan Suggested

A new blood transfusion plan which would make more blood available in case of war or disaster has been proposed by two Army scientists.

The new plan, outlined in a recent issue of the *Journal of the American Medical Association*, is a modification of the universal blood donor system used during World War II and the Korean war.

In the universal donor system, only one type of blood—group O—is used for transfusions, because it generally does not contain factors dangerous to persons of other blood types. The few O donors with dangerous factors can be screened out. Types A, B, and AB blood can cause trouble when given to persons of different types.

However, the Army scientists said use of a single typing test would allow the use of all A blood as well as all of O. This would eliminate the one serious limitation of the "O-only" system, which is wasteful because it uses only about 30 per cent of the "available donor panel"—the American population, they said. Using all O and all A blood would allow use of 85 per cent of the donor panel.

The "O-only" method is satisfactory in a relatively small combat zone, such as Korea, which can

(Continued on page 78)

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Codeine phosphate 10 mg.
—the first choice of cough suppressants, highly effective, yet non-addictive.

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REFERENCES:

1. Blanchard, K. and Ford, R. A., Effective Antitussive Agent in the Treatment of Cough in Childhood, Journal-Lancet, 74:443, Nov., 1954.* 2. Cass, L. J. and Frederik, W., Comparative Clinical Effectiveness of Cough Medication, Amer. Pract. and Dig. of Treat., Vol. 2, p. 844, October, 1951.*

Reprints available upon request.

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New Blood Transfusion Plan Suggested

(Continued from page 76)

be supported by the population and transportation facilities of the United States, the authors said. In fact, during the Korean war, blood was provided in "unstinting amount," but the transfusion service may never again "have it so good," they said.

"Were we to become involved in a larger war, or a war in several theaters, or a war involving the United States mainland we could not afford to rely upon a transfusion service as prodigal as the present universal donor system," the authors said.
cal Service Graduate School, Walter Reed Army
The department of hematology at the Army Medi-
Medical Center, Washington, D. C., of which the authors are members, has had the problem under investigation for two and a half years.

"Perhaps the most critical factor in the new system is the ability of the personnel who must administer the blood," they said. During the Korean war, the universal donor system required little or no knowledge of blood transfusion where one sort of blood was used for all persons.

The proposed plan requires no high level of skill, but it does require a high level of conscientiousness and a higher level of training, for the personnel must know how to perform the test and how to interpret it, the authors said.

(Continued on page 82)

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Protein	24.00 calories
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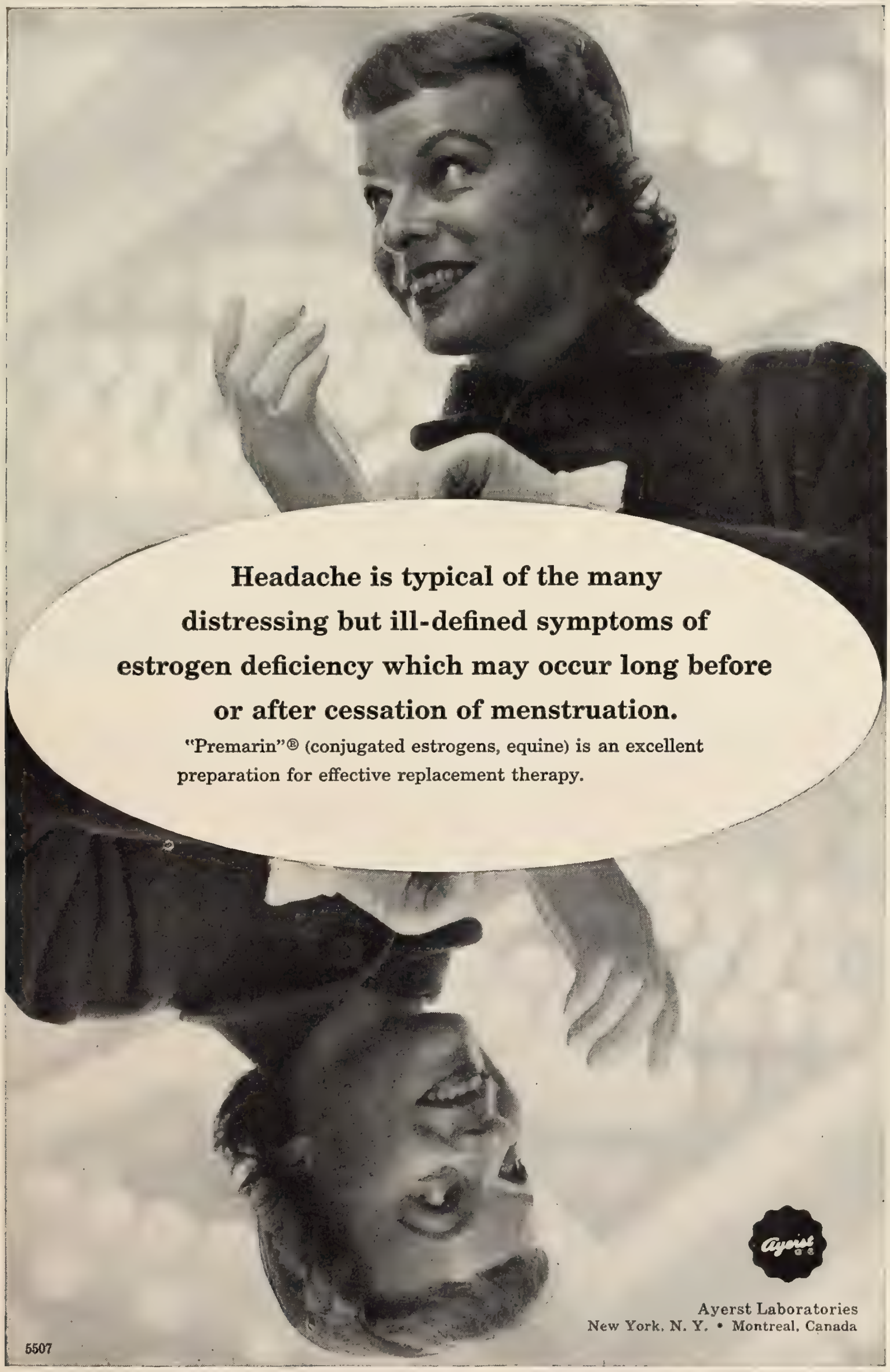

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5507

New Blood Transfusion Plan Suggested

(Continued from page 78)

While the plan still has some limitations, they do not seem "impossible to overcome," and civilian and military investigators are working on the problems, they said. Field trials of serums for use in critical typing tests already are under way.

Making the report were Lt. Col. Joseph H. Akeroyd of the Medical Service Corps and Lt. Col. William H. Crosby of the Medical Corps.

Medical Schools May Face Recruitment Problem

American medical schools set all-time enrollment and graduation records in 1954-55, but they may face a student recruitment problem in the next few years, according to a report by the American Medical Association.

Prepared by the A.M.A.'s Council on Medical Education and Hospitals, the 55th annual report on medical education said 1954-55 was a year of "steady progress" in various phases of medical education.

An enrollment problem may result because applications to medical schools have been decreasing for the past five years. However, the decrease this year was smaller, and it is hoped that a plateau has been reached. In the meantime, some schools may have difficulty in filling all available openings with qualified students.

Only 16.8 per cent of the entering class in 1954-55 had an "A" college record, while 69 per cent had "B" and 14.2 per cent had "C."

There were 6,977 physicians graduated last year from 75 approved four-year medical schools. This is the sixth consecutive year that a graduation record has been set. There has been an increase of over 1,400 in the number of graduates since 1950.

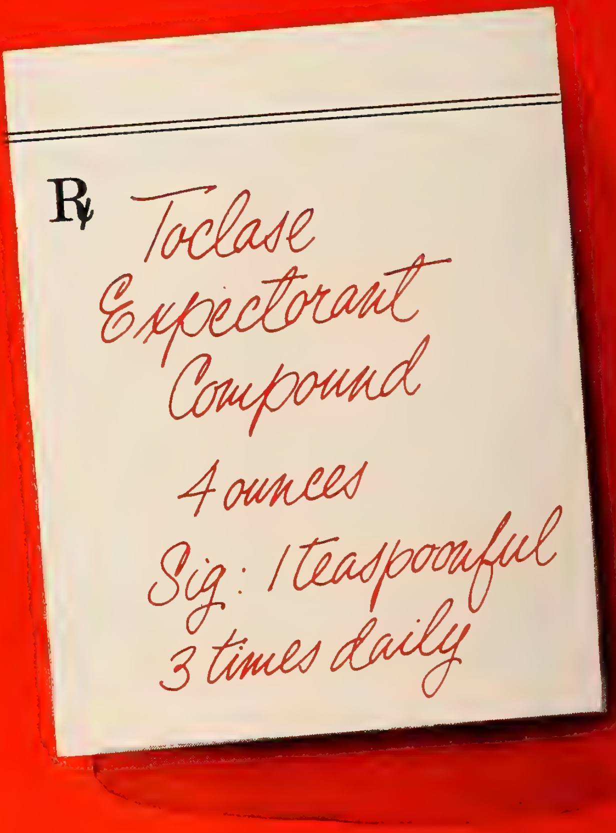
Next year's class probably will be slightly smaller. However, the report said any decrease will be "only an incident" in a continually expanding number of graduates in years ahead, since classes scheduled for graduation in subsequent years are somewhat larger than next year's. Seven more schools will be graduating physicians by 1960.

Four are new schools just opened or in various stages of development: Albert Einstein College of Medicine at Yeshiva University, New York City; University of Miami Medical School, Coral Gables, Fla.; Seton Hall College of Medicine, Jersey City, N. J., and University of Florida School of Medicine, Gainesville, Fla.

The other three are two-year basic medical science schools that are expanding their programs to four years: University of Mississippi School of Medicine, Jackson, Miss.; University of Missouri School of Medicine, Columbia, Mo., and West Virginia University School of Medicine, Morgantown, W. Va.

Eighty-two per cent of the first year class in 1954-55 will be liable for military service on completion

When you write...



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Each 5 cc. teaspoonful contains:

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Mono-Sodium Glutamate	1.67 mg.
Sodium Chloride U.S.P.	1.67 mg.
Alcohol	5%

in an aromatic demulcent vehicle.

of medical school and internship training. Seventy-three per cent of the class graduated in June, 1955, was liable for such service, the report said.

Total enrollment in American medical schools during 1954-55 was 28,583—an increase of 356 over the preceding year. Approximately two-thirds of the increase is accounted for by the addition of the University of California School of Medicine, Los Angeles, to the approved list.

The entering class of 7,576 in the nation's medical schools was the largest ever enrolled. This was an increase of 127 over the preceding year. Half of the increase in the entering class was accounted for by the addition of a first year class at the newly approved California school.

The number of individuals other than undergraduate medical students who received all or part of their instruction from medical faculties was twice as great as the total number of undergraduate medical students. These include students in dentistry, pharmacy, nursing, medical technology, and arts and science, interns, residents, physicians working for advanced degrees, and other graduate students in the basic sciences.

The report also said projected 1955-56 budgets show there has been a "modest improvement" in medical school financing.

Approximately 95 per cent of support of important research now conducted in medical schools is made possible and is dependent upon grants-in-aid from outside agencies. Estimates for 1955-56 indicate that outside agencies will give about $54.5 million to medical schools for the support of research activities and slightly over $7 million for special teaching programs.

This is in addition to the estimated $98 million from tuition, endowment income, legislative appropriation, gifts and grants that support the basic teaching programs of the medical schools.

More than $2 million was given to medical schools during 1954 by the National Fund for Medical Education. This fund is supported by business and industry and by physicians who contribute to the fund through the American Medical Education Foundation. The A.M.A. annually gives a direct contribution to the foundation.

During 1954-55 completed construction by medical schools totaled more than $99 million and construction initiated totaled more than $80 million. In addition, many hospitals and clinic facilities used in teaching were financed by government or private funds and not by the schools.

There are 251 faculty vacancies reported for the 1955-56 session—seven less than in 1954-55. In view of the new schools and new faculty appointments, this slight improvement is perhaps more significant than it appears, the report said.

There were 1,537 women attending medical school. This was a slight increase over the previous

(Continued on page 88)

you get... specific control of the hyperactive cough reflex — without undesirable opiate side effects

with new, non-narcotic, non-opiate

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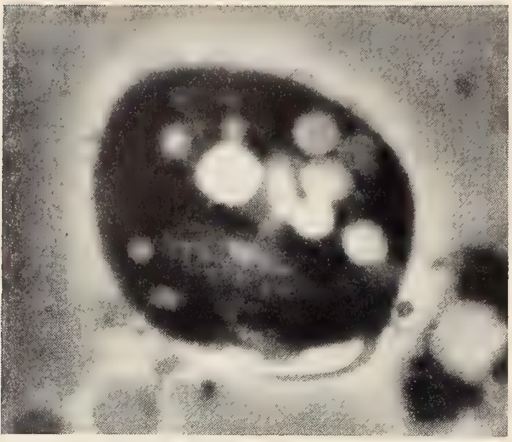
DAVIS TECHNIC USING VAGISEC* JELLY AND LIQUID

EXPOSES AND EXPLODES TRICHOMONADS HIDDEN AWAY IN RUGAE



Phase-contrast microscope shows a trichomonad in a mucinous vaginal smear.

MANY trichomonacides failed in years past largely because they reached only the parasites swimming freely in the vaginal canal—not those hiding under epithelial cells deep among the vaginal rugae. In fact, some agents actually coagulated the albuminous material lining the surface and protected the trichomonads![1]

Success at last. Today, however, you can overcome this problem because VAGISEC jelly and liquid quickly penetrate to trichomonads' hideaways. You can now treat vaginal trichomoniasis successfully, using the Davis technic. Carl Henry Davis, M.D., eminent gynecologist and author, and C. G. Grand, research physiologist, introduced VAGISEC liquid as "Carlendacide" and had it tested by over 100 well-known obstetricians and gynecologists. Dr. Davis states, ". . . over 90% of apparent cures have been obtained. . . ."[2]

Overpowering action. Three surface-acting chemicals in VAGISEC liquid, acting synergistically, not only reach trichomonads but explode them![3] A chelating agent complexes and removes the calcium of the calcium proteinate. A wetting agent removes lipid materials. A detergent denatures the protein. The parasites imbibe water, swell and explode.

The Davis technic.† Dr. Davis recommends a combination of office treatments and home treatments, using both VAGISEC jelly and liquid in home treatments. "A few women have infected cervical, vestibular or urethral glands and require other types of treatment. . . ."[2] It is well to remember the role of the male as carrier of the organism and prescribe protection against re-infection from the husband.[2]

Office treatment. Expose vagina with speculum. Wipe walls dry with cotton sponges and wash thoroughly for about three minutes with a 1:250 dilution of VAGISEC liquid. Remove excess fluid with cotton sponges. Dr. Davis recommends six office treatments, three the first week, two the second, and one the third.

Home treatment. Patient inserts VAGISEC jelly each night and douches with VAGISEC liquid (2 teaspoonfuls in 2 quarts of warm water) each morning except on office treatment days, through two menstrual periods. Continued douching two or three times a week helps to prevent re-infection. Pregnant women should have office treatments only.

Summary. The unique synergistic action of three agents comprising VAGISEC liquid reaches and explodes hidden as well as surface trichomonads. This therapy has a high rate of success and results in fewer flare-ups. VAGISEC jelly and liquid are non-toxic and non-irritating, and leave no messy discharge or stain.

*VAGISEC is the trade-mark of Julius Schmid, Inc. †Pat. App. for

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Active ingredients: Polyoxyethylene nonyl phenol, Sodium ethylene diamine tetra-acetate, Sodium dioctyl sulfosuccinate. In addition, VAGISEC jelly contains Boric acid, Alcohol 5% by weight.

1. Davis, C. H.: Am. Jour. Obst. & Gynec. 68:559 (Aug.) 1954.
2. Davis, C. H.: West. J. Surg. 63:53 (Feb.) 1955.
3. Davis, C. H.: J.A.M.A. 157:126 (Jan. 8) 1955.

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This sensitivity test shows ERYTHROCIN and the same antibiotics against a typical intestinal strain of *E. coli*. Note that ERYTHROCIN and penicillin do not affect this gram-negative organism —although the other antibiotics show marked inhibitory action.

1. Eisenberg, et al., Antib. & Chemo., 3:1026-1028, Oct., 1953.

with little risk of serious side effects

Since ERYTHROCIN is inactive against gram-negative organisms, it is less likely to alter intestinal flora—with an accompanying low incidence of side effects. Also, your patients seldom get the allergic reactions sometimes seen with penicillin. Or loss of accessory vitamins during ERYTHROCIN therapy. *Filmtab* ERYTHROCIN Stearate (100 and 250 mg.) is supplied in bottles of 25 and 100 at pharmacies everywhere. Abbott

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[1] Filmtab—Film scaled tablets; patent applied for.

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Radioactive Iodine Helps Cardiac Patients

Radioactive iodine has been used to reduce the work of the heart in seriously ill cardiac patients, four Los Angeles physicians said recently.

Their report in a recent issue of the *Journal of the American Medical Association* deals with 231 patients in advanced stages of heart disease, who were given radioiodine for periods of six months to four years. They had angina pectoris or congestive heart failure of a combination of the diseases.

The iodine reduces the patient's output of thyroid, which in turn lowers the rate of metabolism. The lower metabolic rate means the heart does not have to work so hard.

While the condition of the heart is "in no way changed or cured by radioiodine," the symptoms of the disease are relieved, the physicians said.

(Continued on page 90)

Medical Schools May Face Recruitment Problem

(Continued from page 83)

year. The 345 women graduates was the smallest number since 1947.

The year witnessed the largest recorded attendance—105,466—at 1,719 short courses, conferences, assemblies, seminars, and study and circuit courses for practicing physicians wishing additional training.

Located 22 miles south of San Francisco. Accessible to transportation.

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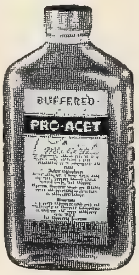

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I have never experienced such a profound sense of cleanliness."*

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PRO-ACET, the original liquid douche concentrate with:

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- **PATIENT PLEASING RESULTS AND REASONABLE COST (3 cents a quart)**
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PRO-ACET cleanses the vaginal vault by dispersing mucus and cellular debris with superior wetting action for penetration. Clinically Tested Acid Detergent Douching.[1] Detergents have been shown to have a "toxic action upon the bacterial protoplasm after it has penetrated" the cell.[2]

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Write for information about application of Pro-Acet in your examining room.

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DIRECTIONS: To prepare vaginal douche, add one teaspoonful of PRO-ACET Concentrate to each quart of warm water and MIX WELL.
Formula for Pro-Acet Concentrate: Citric Acid, 2.5%; Acetic Acid 4.0%; Lactic Acid 2.0%; Sodium Lauryl Sulfate 3.0%; Dextrose 5.0%; Lactose (beta) 2.5%; Sodium Acetate 2.5%; Methyl Paraben 0.2%; all chemicals U.S.P. in a solution of Distilled Water.

1. Devoe, R. W., & Footer, W., California Medicine, 80:300 (1954).
2. Gershenfeld, Louis, and Milanick, Vera E., "Bactericidal and Bacteriostatic Properties of Surface Tension Depressants," Am. J. Pharm., 113:306.

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Graduate School of Medicine

INTENSIVE POSTGRADUATE COURSES

STARTING DATES—WINTER, 1955-1956

SURGERY—Surgical Technic, Two Weeks, November 28, January 23.
  Surgical Anatomy and Clinical Surgery, Two Weeks, March 5.
  Surgery of Colon and Rectum, One Week, November 28, February 27.
  General Surgery, One Week, February 13; Two Weeks, April 23.
  Basic Principles in General Surgery, Two Weeks, April 9.
  Gallbladder Surgery, Ten Hours, April 9.
  Fractures and Traumatic Surgery, Two Weeks, March 12.
GYNECOLOGY — Office and Operative Gynecology, Two Weeks, November 28, February 13.
  Vaginal Approach to Pelvic Surgery, One Week, December 12, February 6.
OBSTETRICS—General and Surgical Obstetrics, Two Weeks, February 27.
MEDICINE—Internal Medicine, Two Weeks, May 7.
  Electrocardiography and Heart Disease, Two-Week Basic Course, March 12.
  Gastroscopy, Forty-Hour Basic Course, March 19.
  Dermatology, Two Weeks, May 7.
RADIOLOGY—Diagnostic X-Ray, Two Weeks, January 9.
  Clinical Use of Radioactive Iodine, One Week, April 2.
  Clinical Uses of Radioisotopes, Two Weeks, May 7.
PEDIATRICS—Intensive Review Course, Two Weeks, April 9.
UROLOGY—Two Week Course, April 16.
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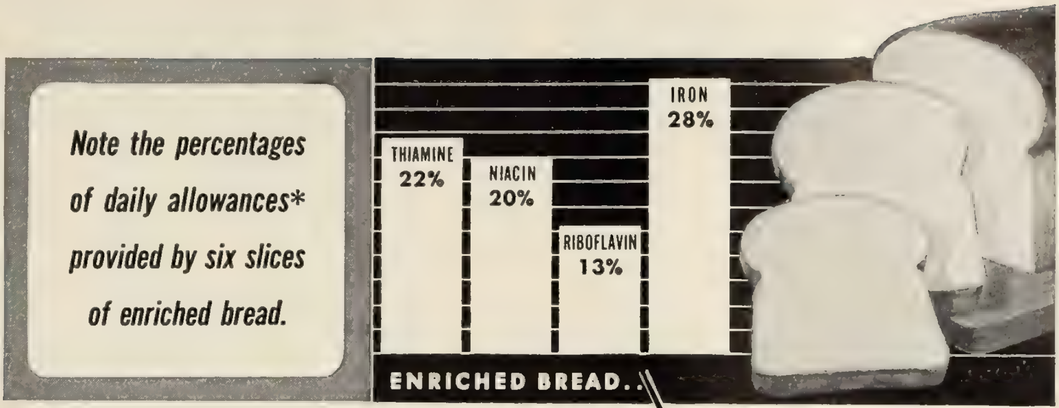

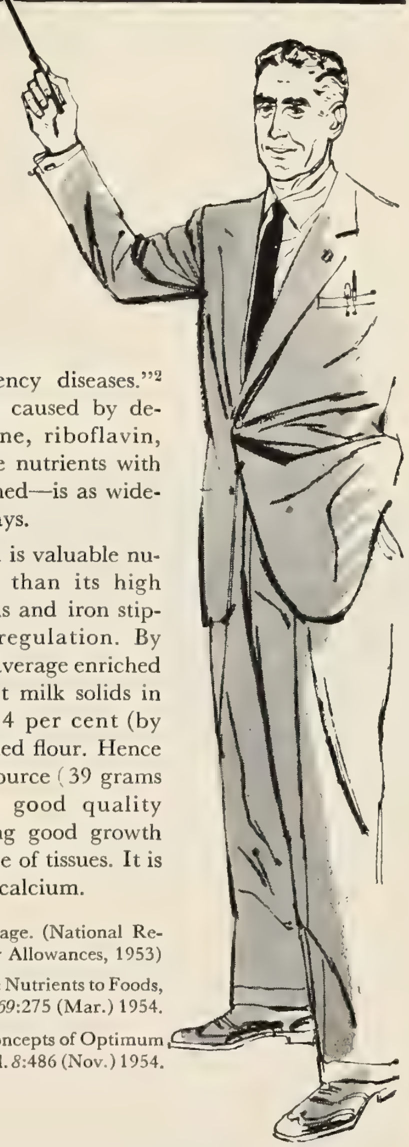

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ENRICHED BREAD, marketed since 1941, recently has been endorsed again by the Food and Nutrition Board of the National Research Council and by the Council on Foods and Nutrition of the American Medical Association.[1] This reaffirmation of endorsement in former years (1939, 1941, 1946) is based on "good evidence" that enriched bread has been "beneficial to the public," has "encouraged sound nutritional practices," and has contributed notably to "correcting deficiencies in the diets of the general population."

Nationally marketed enriched bread merits a large share of the credit for "the great gain in public health" in recent years, attributed to modern food commodities possessing high nutrient content. "Within the past two decades, for the first time in our history we have reached a national pattern of food practices that permits almost a complete escape from the classical forms of nutritional deficiency diseases."[2] None of the diseases caused by deficiencies of thiamine, riboflavin, niacin, and iron—the nutrients with which bread is enriched—is as widespread as in former days.

But enriched bread is valuable nutritionally for more than its high amounts of B vitamins and iron stipulated by official regulation. By commercial practice, average enriched bread contains nonfat milk solids in amounts averaging 4 per cent (by weight) of its contained flour. Hence it also represents a source (39 grams per pound loaf) of good quality protein for supporting good growth as well as maintenance of tissues. It is also a good source of calcium.

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*For man 45 years of age. (National Research Council Dietary Allowances, 1953)

1. The Addition of Specific Nutrients to Foods, Public Health Reports *69*:275 (Mar.) 1954.
2. King, C. G.: Newer Concepts of Optimum Nutrition, Food Technol. *8*:486 (Nov.) 1954.

The nutritional statements made in this advertisement have been reviewed and found consistent with current medical opinion by the Council on Foods and Nutrition of the American Medical Association.

AMERICAN BAKERS ASSOCIATION
20 NORTH WACKER DRIVE, CHICAGO 6, ILL.

Female Hormone Controls Spontaneous Bleeding

Estrogen, a female hormone, may be the solution to two common medical emergencies—profuse nose bleeds, and severe hemorrhages following removal of adenoids, a New York physician said recently.

Many schemes of therapy have been recommended, but finding "a simple, reliable solution" to these problems "has taxed the ingenuity of the medical profession," he said.

Just why estrogen, first used to control bleeding from the womb, stops nose bleeds and postadenoidectomy hemorrhages is not known. The physician hopes that future studies will tell why and also will lead to use of the hormone in other types of bleeding.

Dr. Harold C. Menger of the Evangelical Deaconess Hospital, Brooklyn, N. Y., reported the "dramatic" response of 16 patients to the treatment in a recent issue of the *Journal of the American Medical Association.*

Current methods of treatment for spontaneous nose bleeds are successful in some cases. But other cases resist any attempted therapy and stop "as enigmatically as they begin," he said.

Spontaneous bleeding after removal of adenoids usually can be controlled with nasal packing. However, in occasional cases it is not effective, in many it is difficult and complicated, and in all it is time consuming, he said.

Estrogen, when given intravenously or intramuscularly, stopped both types of bleeding within one hour in all but two of Dr. Menger's cases. Those two cases were controlled within three hours. There were no side effects from the hormone.

These hemorrhages often cease spontaneously, but the uniform results and quick responses in these cases rule out the possibility of spontaneous stoppage and of coincidence, Dr. Menger said.

Radioactive Iodine Helps Cardiac Patients

(Continued from page 88)

Results were classified as excellent in 53 per cent of the patients and as good in 33 per cent. Only 14 per cent showed no improvement.

Complete relief of symptoms is not "a prerequisite for an excellent or worthwhile result," the authors said. As an example, they said, a patient with angina pectoris who is relieved of the "agonizing need" to take nitroglycerin repeatedly throughout the day and night receives real help, even though after treatment he still cannot walk without pain. Benefits patients received included improvement in comfort, ability to care for self or to work, reduction in required drugs, and decrease in dangerous complications.

Making the report were Drs. Frederick W. Pobirs, Henry L. Jaffe, Maurice H. Rosenfeld, and Laurence J. Stuppy, all of the radiation therapy department and department of medicine of Cedars of Lebanon Hospital, Los Angeles.

"CHAIN REACTION" THERAPY...

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Vasodilator—

—rapidly oxygenates tissues and relieves ischemia, a major source of pain.

INDICATIONS:
Peripheral vascular disorders
Meniere's syndrome
Bursitis
Tension headache
Neuralgia

THE "Infra-Red" EFFECT is the pronounced flush of the blush areas—evidence to your patients of VASTRAN'S therapeutic action. If desired, flushing can be avoided by prescribing VASTRAN after meals.

Wampole LABORATORIES

Unusual Poisoning Signs Described

Two cases of an uncommon chemical poisoning with such "interesting and bizarre" effects as stomach ulcer and mental depression were reported recently by two New York industrial health officials.

Persons suffering poisoning by carbon disulfide —used in making rayon or artificial silk—may even appear to have chronic alcoholism, lead poisoning, brain tumor or multiple sclerosis.

Some symptoms include headache, weakness, nausea, inability to concentrate, forgetfulness, unsteadiness, double vision, impotency, temper outbursts, numbness of the hands, and anemia.

Present standards of safety—based on the air concentration of carbon disulfide vapor—are now too low and should be raised by the American Standards Association, the physicians said. Poisonings could be prevented, they said, by adequate ventilation of rooms where the chemical is used.

Early diagnosis also is essential, because many advanced cases of carbon disulfide poisoning do not respond to treatment, they said. Some of the symptoms in the two reported cases had appeared 10 years before their cause was recognized.

Making the report in a recent issue of the *Journal of the American Medical Association* were Dr. Irving R. Tabershaw, director of the division of industrial hygiene of the New York Department of Labor, and Dr. Morris Kleinfeld, chief of the medical unit of the same division.

Latin American Disease Appears in Texas

A parasitic disease, previously found only in Mexico and Central and South America, has been discovered in a 10-month-old Texas girl by two Corpus Christi pediatricians.

The disease is caused by a microscopic parasite which lives in blood and tissues of man and such animals as armadillos, opossums, mice and wood rats. The parasite is transmitted from animals to man by triatomid bugs (called "blood-suckers" in Texas).

Although infected bugs have been found in Texas, California and Arizona, this is the first reported case of American trypanosomiasis (Chagas' disease) occurring in man in the United States, Drs. Norman C. and Hannah B. Woody wrote in a recent issue of the *Journal of the American Medical Association.*

The physicians said they intended their report as an "alert" against other probable cases in the southwestern United States. The disease should be considered as a possibility when a child in this area develops a vague feverish illness, they said.

They suggested that residents of this area be tested for the organism before donating blood, since the parasite has been known to live as long as 257 days in human blood.

There are two commonly described forms of American trypanosomiasis. The acute form, usually seen in young children, lasts from 20 to 30 days. It is characterized by fever, swelling of the face, eye-

(Continued on page 102)

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— thus provides the safe, metabolic approach to control of pain caused by inadequate peripheral circulation and impaired tissue metabolism.

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Thiamine mononitrate	10 mg.
Pyridoxine HCl	1 mg.
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dosage:
One tablet three times daily, preferably on an empty stomach.

supplied.
Bottles of 100 and 500 scored tablets.

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Vastran AMP
Intramuscular
For rapid, positive vasodilation and metabolic stimulus, many doctors prefer Vastran AMP.
Each cc. of solution contains: Nicotinic acid, 20 mg.; Vitamin B_{12}, 75 mcg.; Adenosine-5-Monophosphoric acid, 25 mg.
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in anxiety and tension states
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Squibb Whole Root Rauwolfia

As a tranquilizing agent in office practice, Raudixin produces a calming effect, usually free of lethargy and hangover and without the loss of alertness often associated with barbiturate sedation. It does not significantly lower the blood pressure of normotensive patients.

In hypertension, Raudixin produces a gradual, sustained lowering of blood pressure. In addition, its mild bradycardic effect helps reduce the work load of the heart.

- **Less likely to produce depression**
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- **Causes no liver dysfunction**
- **No serial blood counts necessary during maintenance therapy**
- Raudixin is not habit-forming; the hazard of overdosage is virtually absent. Tolerance and cumulation have not been reported.
- Raudixin supplies the *total* activity of the whole rauwolfia root, accurately standardized by a rigorous series of test methods. The total activity of Raudixin is not accounted for by its reserpine content alone.

Supply: 50 mg. and 100 mg. tablets, bottles of 100 and 1000.

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Disp. #100
Sig.: 1 tab. b.i.d.

*Ataractic, from ataraxia: calmness untroubled by mental or emotional excitation. (Use of term suggested by Dr. Howard Fabing at a recent meeting of the American Psychiatric Association.)

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Hearing Loss Needn't Mean "Little Black Button"

When a person's hearing begins to fade, it doesn't necessarily mean he'll end up wearing "a little black button" in his ear, according to an article in a recent issue of *Today's Health*, published by the American Medical Association.

Howard A. Carter, director of biophysical investigation for the American Medical Association's Council on Physical Medicine and Rehabilitation, said there are a number of facilities available for the several million Americans who have some degree of hearing loss.

The first step when hearing begins to fade is to consult an otologist or ear specialist. He can find the extent and cause of hearing loss and decide whether medicine, surgery, hearing aids or lipreading instruction will help, Carter said.

For most persons the loss is only temporary or slight and is caused by impacted wax, infection, drugs, or infectious diseases such as mumps or a "cold," any of which can be treated by the specialist. For others surgery will help.

While approximately 15 million persons suffer some degree of hearing loss, about four million actually need hearing aids. However, only about one million now wear them. The rest refuse because of "pride or vanity, the first cost is too high, the upkeep expense is too great or the instrument is a nuisance to carry around," the author said.

With the advent of the transistor hearing aid, the hard of hearing person no longer needs to fear the "little black button."

The transistor is a substitute for a vacuum tube. The transistor hearing aid costs considerably less to operate than the vacuum type—about 10 cents a week for batteries instead of a dollar. It is much smaller and can even be incorporated into the enlarged frames of eyeglasses, he said.

Others are made of flesh-colored plastic and are small. Women may use various types of jewelry to disguise the instrument, or it may be hidden in the hair.

When the ear specialist finds that a patient needs a hearing aid, he may send the patient to one of 134 hearing rehabilitation clinics in this country or Canada, the author said.

Most of these centers have a physician or a committee of physicians as medical directors. They make careful examinations and advise about amplification by hearing aid. They do not sell the instruments but refer patients to hearing aid dealers who actually sell and service them.

In difficult cases the physicians sometimes recommend that the patients take lipreading courses, taught by trained speech experts at the centers, to supplement the hearing aid, the author said.

Information about hearing clinics may be obtained by writing to the Audiology Foundation, Box 21, Glenview, Ill.

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Typical Sanka Booth At Medical Conventions All Over The Country

Your verdict was "DELICIOUS!"

and your patients will agree

"This is for me—because I love good coffee!" Comments like this were heard at the Instant Sanka booth at the medical convention.

Good evidence that if you're a coffee lover, you'll enjoy Instant Sanka. Because Instant Sanka is 100% pure coffee—rich and full-bodied. Only caffein has been removed.

And just as a reminder—why not tell your caffein-sensitive patients about Instant Sanka Coffee? They can drink as much Instant Sanka as they want without being bothered by sleeplessness or jitters due to caffein.

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COFFEE
LETS YOU SLEEP

All pure coffee...
97% caffein-free

Product of General Foods

Consultants Untangle Knotty Problems

Doctors who answer questions for other doctors today tangled with such knotty problems as: Should football players be given extra vitamins; are colored socks bad for sore feet, and what can be done with a 4-year-old child who refuses food?

The consultants came up with the following answers in a recent issue of the *Journal of the American Medical Association:*

All "mass medicine," including vitamins and iron in daily doses, is bad medicine for athletes.

It disapproved medicine or oxygen administration because players begin to expect it, and are encouraged to exert themselves beyond the limits they have learned "from instinct and experience." Giving drugs to stimulate athletes to greater activity or lessen the pain of an injury so they can keep playing is "poor medicine and worse education."

About colored socks: A consultant said wearing them while suffering open foot sores "involves no common peril." Wearing white socks—a common recommendation for infections or other sores—is probably not necessary. Sometimes colored socks cause trouble, but only because of an allergy to dye or yarn.

The four-year-old who won't eat unless her parents feed her just needs to make "a new start in life," another consultant said. He recommended giving "a complete change" at mealtime—a new place to eat, different dishes, and even different people to serve her. Giving her favorite foods and a dull-edged knife to practice cutting and spreading will help. So will eating with other children.

A short stay in the hospital—without parents—is a good last resort. Furthermore, there's no real reason to worry, he said. The child probably won't go without food for more than three days anyway.

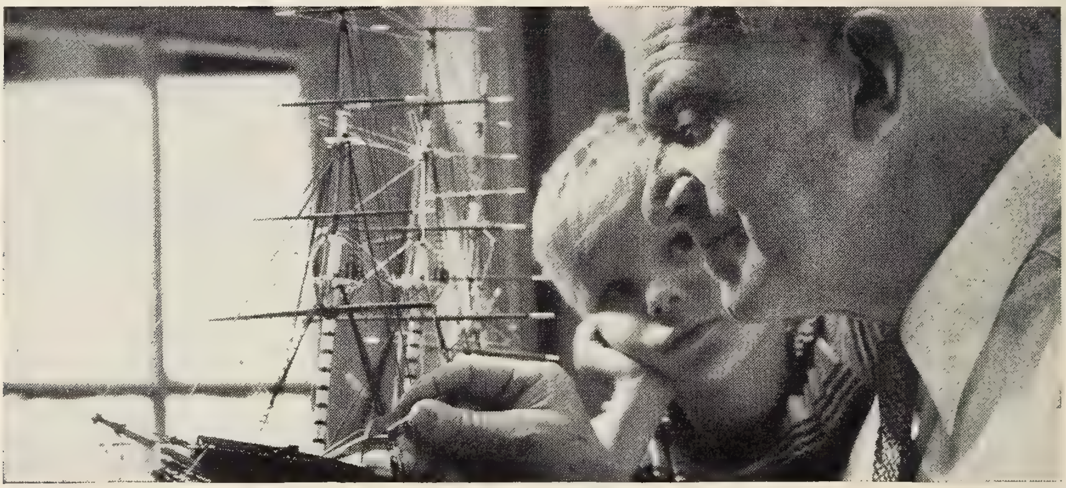
Latin American Disease Appears in Texas

(Continued from Page 91)

lids, and occasionally the whole body, and by nervous symptoms ranging from simple irritability to those typical of encephalitis. Parasites are found in the blood during this stage.

The Texas infant lived in an area where opossums and "blood-suckers" had been seen, and her father had been bitten by the bugs. She had the acute form of the disease. When first examined in July, 1955, she had fever and puffiness around the eyes and was irritable and listless. The illness was first thought to be an unknown virus disease and later leukemia. However, close analysis of the blood revealed the presence of the parasites, and antibiotics were given.

At last report she had no fever but continued to be somewhat irritable and show slight puffiness around the eyes. The parasites still could be seen in the blood, but there were no signs of chronic infection, they said.



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MAJOR ADVANTAGES: Increases appetite, helps patients gain weight. Stimulates hemopoiesis. Available as Elixir, Tablets and Injectables for maximum flexibility of dosage. Elixir and Tablets readily blend with milk, juices, infant formulas.

Supplied as REDISOL Soluble *Tablets:* 25, 50, 100 *mcg.;* cherry-flavored *Elixir:* 5 *mcg.* per 5 cc.; *Injectable:* 30, 100, 1000 *mcg.* per cc.

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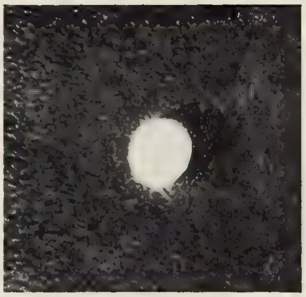
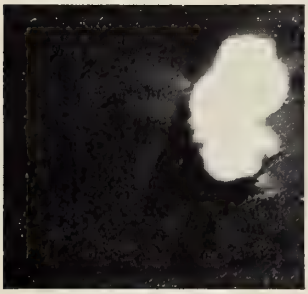
The organisms commonly involved in

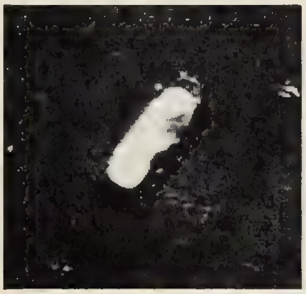
Acute Pharyngitis

Strep. pyogenes (8,500X)


Staph. aureus (9,000X)

D. pneumoniae (10,000X)


N. intracellularis (5,000X)


H. influenzae (16,000X)

C. diphtheriae (6,000X)

K. pneumoniae (13,000X)

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***All* of them are
included in
the more than
30 organisms
susceptible to
broad-spectrum**

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100 mg. and 250 mg. capsules • 125 mg. and 250 mg./tsp.
oral suspension (PANMYCIN Readimixed)
100 mg./cc. drops • 100 mg./2 cc. injectable, intramuscular
100, 250, and 500 mg./injection, intravenous

*TRADEMARK, REG. U. S. PAT OFF —THE UPJOHN BRAND OF TETRACYCLINE

WASHINGTON REPORT

(The California Medical Association subscribes regularly to *Washington Report on the Medical Sciences*, published by Gerald G. Gross. This report covers all federal activities affecting the public health and the practice of medicine. It furnishes up-to-date information on what goes on, both publicly and behind the scenes, in Washington in connection with medical matters. Below is reproduced the latest weekly issue; its scope will give the reader an appreciation of the variety of matters which medical representatives meet in the national capital.)

Scanning Capital Scene: Control of Barbiturates

On basis of testimony presented recently before a Congressional committee, federal controls on distribution of barbiturates are not indicated. Commissioner Harry J. Anslinger testified that illicit traffic in these products is relatively minor and placement of their control in his Bureau of Narcotics would not be justified. House Ways and Means Subcommittee on Narcotics also heard Drs. G. Halsey Hunt and Kenneth Chapman, of Public Health Service, uphold existing system of supervision by medical and pharmacy professions.

Subcommittee, chaired by Rep. Hale Boggs (D., La.), opened its fall series of hearings recently apparently with idea that Narcotics Bureau should take over barbiturates, a step that would add considerably to physicians' paperwork duties. The House group will hear Food and Drug Administration on the problem, then plans to conduct field hearings in November at Lexington, Ky., New York, San Francisco, Seattle, Chicago.

Vaccine Developments

Only states which have not yet submitted plans for participation in $30 million federal grant program for purchase of Salk vaccine are Maine, Vermont, Massachusetts, Montana and Idaho. To date 40 state plans have been approved and others are pending. The Public Health Service announced release of 1,113,930 cc. of vaccine, about 60 per cent of which was allocated to the states and remainder to National Foundation for Infantile Paralysis. Earlier, PHS approved broadening of priority age groups upon recommendation of its national advisory committee.

Antibiotics Conference

Three-day international conference on use of antibiotics in agriculture opened in Washington recently. At closing session, Dr. Maxwell Finland, of Boston, will discuss human implications of livestock and poultry feeds containing antibiotics as a growth stimulant and disease preventive. Twelve foreign countries will be represented at conference,

(Continued on Page 108)

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Conditioned Response Therapy with a year's series of necessary reinforcements

A dignified treatment in ideal surroundings, resulting in a lack of desire for alcoholic beverages and a return of self-confidence and self-respect

Additional information and brochure gladly given

Patient returned to Personal Physician for recommended after-care

CERTIFIED FOR STATE DISABILITY INSURANCE

establishing
desired
eating
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Obedrin®

and the 60-10-70 Basic Plan

Correct medication is important in initiating control that leads to development of good eating habits, essential in maintaining normal weight.[1,2,3]

Obedrin contains:

Methamphetamine for its anorexigenic and mood-lifting effects.
- Pentobarbital as a corrective for any excitation that might occur.
- Vitamins B_1 and B_2 plus niacin for diet supplementation.
- Ascorbic acid to aid in the mobilization of tissue fluids.

Obedrin contains no artificial bulk, so the hazards of impaction are avoided. The 60-10-70 Basic Plan provides for a balanced food intake, with sufficient protein and roughage.

Formula:

Semoxydrine HCl (Methamphetamine HCl) 5 mg.; Pentobarbital 20 mg.; Ascorbic acid 100 mg.; Thiamine HCl 0.5 mg.; Riboflavin 1 mg.; Niacin 5 mg.

1. Eisfelder, H.W.: Am. Pract. & Dig. Treat., 5:778 (Oct.) 1954. 2. Sebrell, W.H., Jr.: J.A.M.A. 152:42 (May) 1953. 3. Sherman, R.J.: Medical Times, 82:107 (Feb.) 1954.

*Write for 60-10-70 Menu pads,
Weight Charts, and samples of Obedrin.*

THE S. E. MASSENGILL COMPANY
BRISTOL, TENNESSEE

WASHINGTON REPORT

(Continued from Page 104)

Soviet Union among them. Cosponsors are National Academy of Sciences and National Research Council, with cost being borne by four major pharmaceutical houses.

Blood Council Planning

Dr. David N. W. Grant, medical director of American Red Cross, left for Chicago recently to attend meeting of directors of Blood Council, Inc., (formerly known as National Blood Foundation). Decisions scheduled to be made included selection of headquarters city and appointment of an executive director. An A.M.A. staff member reportedly has inside chance for the directorship, with Washington likely to be chosen for headquarters. Federated into Blood Council, Inc., are A.M.A., Red Cross, American Hospital Association, American Association of Blood Banks and American Society of Clinical Pathologists.

Plans on U. S. Workers' Health Coverage Advance

Anticipating enactment of legislation in 1956 authorizing contributory health insurance for Federal employees, Civil Service Commission is proceeding seriously with the myriad details of implementation. Fact that the pending bill stresses freedom of choice—Blue Cross, Blue Shield, group practice clinics, indemnity-type insurance plan, etc.—involves nightmarish administrative problems. It is these problems to which C.S.C. is attempting to find answers before Congress takes up the bill early next year.

David F. Lawton has been named coordinator of this planning program, under general supervision of Warren B. Irons, head of C.S.C.'s Bureau of Personnel Administration. For indoctrination purposes, he recently spent a week in Hartford, Conn., studying Aetna Life's procedures and methods, followed by a week of similar investigation in the offices of Medical Service of D. C. (Blue Shield). Next step: Formation of small "task forces" to work out such details as processing of claims, personnel transfer rules and fixing of benefit standards.

Tax Decision Given on Firm's Hospital Outlay

A private business firm which makes financial contributions to a hospital construction fund, conditional upon the hospital's making certain of its facilities available for exclusive use of the company's personnel, may not make its payments deductible either as a charitable gift or as a business expense, Internal Revenue Service has decided. The ruling, involving parties who are not mentioned by name, is published in October 10 issue of "Internal Revenue Bulletin" (Rev. Rul. 55-616).

(Continued on Page 114)

1950 Cortone® | 1952 Hydrocortone®
1954 'Alflorone' | 1955 Deltra®

'Hydeltra' tablets
(PREDNISOLONE, MERCK) 5 mg.—2.5 mg.—1 mg. (scored)

the delta-1 analogue of hydrocortisone

Indications: *Rheumatoid arthritis*
Bronchial asthma
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and
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nonhormonal anti-arthritic

BUTAZOLIDIN®

(brand of phenylbutazone)

relieves pain • improves function • resolves inflammation

Employing the serum protein-polysaccharide ratio (PR) as an objective criterion of rheumatoid activity, it has again been shown that BUTAZOLIDIN "...produces more than a simple analgesic effect in rheumatoid arthritis."[1]

Clinically, the potency of BUTAZOLIDIN is reflected in the finding that 57.6 per cent of patients with rheumatoid arthritis respond to the extent of "remission" or "major improvement."[2]

Long-term study has now shown that the failure rate with BUTAZOLIDIN in rheumatoid arthritis, and particularly in rheumatoid spondylitis, is significantly lower than with hormonal therapy.[3]

(1) Payne, R. W.; Shetlar, M. R.; Farr, C. H.; Hellbaum, A. A., and Ishmael, W. K.: J. Lab. & Clin. Med. *45*:331, 1955. (2) Bunim, J. J.; Williams, R. R., and Black, R. L.: J. Chron. Dis. *1*:168, 1955. (3) Holbrook, W. P.: M. Clin. North America *39*:405, 1955.

BUTAZOLIDIN® (brand of phenylbutazone). Red coated tablets of 100 mg.

BUTAZOLIDIN being a potent therapeutic agent, physicians unfamiliar with its use are urged to send for literature before instituting therapy.

GEIGY PHARMACEUTICALS Division of Geigy Chemical Corporation
220 Church Street, New York 13, N. Y.
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51155

WASHINGTON REPORT

(Continued from Page 108)

In case at issue, the company—its employees and their families account for 95 per cent of population of area to be served by the hospital—had agreed to match funds raised by public subscription, provided at least 20 beds were reserved for its personnel and various other privileges were granted, over a 10-year period.

"The (contribution) payments constitute capital expenditures which are recoverable over the 10-year period of economic usefulness to the taxpayer corporation of the facilities and services, and the 20 beds to be made available for the treatment of its employees," ruling states.

Competitive Blue Shield

Dr. Donald Stubbs, president of Medical Service of D. C., believes Blue Shield should make a strong bid for this sizable prepayment market. Addressing D. C. Medical Society's annual meeting recently, he came out for expansion of the group which he heads so that it may compete on even terms with other prospective bidders for this government business. He observed meaningfully that while federal employees, including dependents, comprise about one-half of the half-million membership in local Blue Shield plan, there are still approximately 100,000 government workers in Washington alone who are not affiliated with it.

(Continued on Page 126)

ALEXANDER SANITARIUM
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LOCATED IN THE FOOTHILLS OF BELMONT, CALIFORNIA

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The Alexander Sanitarium is a neuropsychiatric open hospital for treatment of emotional states. Treatment consists of electric shock, hydrotherapy, insulin shock-therapy, psychotherapy and occupational therapy. Conditioned reflex treatment for alcoholism.

Occupational facilities consist of special occupational therapy room, tennis courts, billiards, badminton court, table tennis and completely enclosed, heated, full-size swimming pool.

Six Psychiatrists in Attendance:

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Chief of Staff

HENDRIE GARTSHORE, M.D.
Asst. Chief of Staff

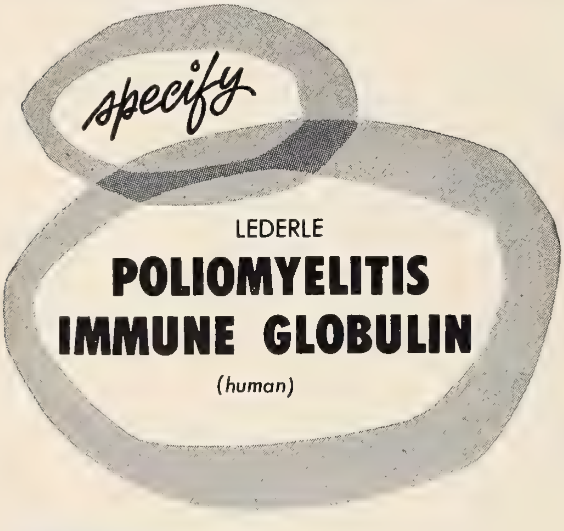
P. P. POLIAK, M.D.
Asst. Chief of Staff

ROSS HENDRICKS, M.D.
Staff Physician

GEORGE KOWALSKI, M.D.
Staff Physician

ALLAN LEVY, M.D.
Staff Physician

A patient accepted for treatment may remain under the supervision of his own physician if he so desires.



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LEDERLE
POLIOMYELITIS IMMUNE GLOBULIN
(human)

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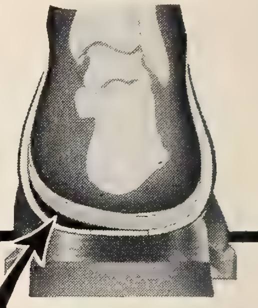
For the modification of measles and the prevention or attenuation of infectious hepatitis and possibly poliomyelitis.

LEDERLE LABORATORIES DIVISION
AMERICAN Cyanamid COMPANY Pearl River, New York

Foot-so-Port Shoe Construction and its Relation to Weight Distribution



- Insole extension and wedge at inner corner of heel where support is most needed.
- Special Supreme rubber heels are longer than most anatomic heels and maintain the appearance of normal shoes.
- The patented arch support construction is guaranteed not to break down.
- Innersoles are guaranteed not to crack, curl, or collapse. Insulated by a special layer of Texon which also cushions firmly and uniformly.
- Foot-so-Port lasts were designed and the shoe construction engineered with orthopedic advice.
- NOW AVAILABLE! Men's conductive shoes. N.B.F.U. specifications. For surgeons and operating room personnel.
- By a special process, using plastic positive casts of feet, we make more custom shoes for polio, club feet and all types of abnormal feet than any other manufacturer.

Write for details or contact your local **FOOT-SO-PORT** *Shoe Agency. Refer to your Classified Directory*

Foot-so-Port Shoe Company, Oconomowoc, Wis.

NOW—EFFECTIVE STEROID HORMONE
THERAPY OF RHEUMATIC AFFECTIONS
WITH GREATER SAFETY AND ECONOMY

PABALATE®-HC

Robins

Pabalate with Hydrocortisone

Clinical evidence indicates that, in Pabalate-HC, the synergistic antirheumatoid effects of hydrocortisone, salicylate, para-aminobenzoate, and ascorbic acid achieve satisfactory remission of symptoms in *up to 85% of cases studied*

- —*with a much higher degree of safety*
- —*even when therapy is maintained for long periods*
- —*at significant economy for the patient*

Each tablet of Pabalate-HC contains 2.5 mg. of hydrocortisone — 50% more potent than cortisone, yet not more toxic.

FORMULA

ach tablet:

drocortisone (alcohol)	2.5 mg.
assium salicylate	0.3 Gm.
assium para-aminobenzoate	0.3 Gm.
orbic acid	50.0 mg.

SAGE: Two tablets four times daily.
ditional information on request.

AVAILABLE
FOR YOUR
PRESCRIPTION
NOW

A. H. ROBINS CO., INC. RICHMOND 20, VIRGINIA
Ethical Pharmaceuticals of Merit since 1878

WASHINGTON REPORT

(Continued from Page 114)

Dr. Stubbs' future role as a Blue Shield representative in connection with insurance coverage of federal employees and dependents of military personnel will not be limited to local scene. He is chairman of reactivated government relations committee of Blue Shield Commission.

Reinsurance Revival?

A speaker at one of the luncheons held on program of D. C. Medical Society meeting was Roswell B. Perkins, assistant secretary of Health, Education and Welfare. He noted "amazing growth" of voluntary health insurance plans, reaffirmed Administration's position that "more rapid experimentation" by them is desirable and intimated that the last word on federal reinsurance has not yet been uttered, notwithstanding wave of opposition which it has provoked.

"We hope," he said, "that there will be active consideration in Congress next year with respect to the problems I have mentioned, and prompt and effective action." Among these problems he listed increased federal-state funds for medical care of persons on relief and mortgage loan insurance to stimulate hospital construction, as well as expanding health insurance coverage by means of government reinsurance of risk.

House Group Inspecting Many Veterans Hospitals

House Veterans Subcommittee on Hospitals has begun inspection tour of veterans hospitals in West and South. The tour will include Long Beach, Los Angeles and San Francisco. Then, Sheridan, Wyo., Minot, N. D., Lincoln, Neb., and Wadsworth, Kansas. Between November 4 and tour's close November 11, they will visit Gainesville, Tampa and Miami, in Florida, Augusta, Ga., Jackson, Miss., and New Orleans and Alexandria, La. Rep. George S. Long (D., La.) is subcommittee chairman.

Appel Heads Joint Group Planning Mental Survey

Joint Commission on Mental Illness and Health, Inc., has its first president, is now seeking an executive director and a chief investigator. Dr. Kenneth E. Appel, professor of psychiatry at University of Pennsylvania School of Medicine, was elected president at commission's first annual meeting here October 8. Within a few weeks its proposed three-year plan for a study of human and economic problems of mental illness in United States will be submitted to Public Health Service for approval, said Dr. Leo H. Bartemeier, trustee chairman.

Tentative Plan in Hand

Commission's first formal meeting discussed a prospectus prepared by a planning and study committee headed by Dr. Jack R. Ewalt, Boston. He is

(Continued on Page 133)

Lederle

FOLBESYN*

Vitamins *Lederle*

A well-balanced, high-potency vitamin formula containing B-Complex and C

FOLBESYN provides B-Complex factors (including folic acid and B_{12}) and ascorbic acid in a well balanced formula. It does not contain excessive amounts of any one factor.

FOLBESYN Parenteral may be administered intramuscularly, or it may be added to various hospital intravenous solutions. It is useful for preoperative and postoperative treatment and during convalescence.

Dosage: 2 cc. daily. Each 2 cc. provides:

Thiamine HCl (B_1)	10 mg.
Sodium Pantothenate	10 mg.
Niacinamide	50 mg.
Riboflavin (B_2)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ascorbic Acid (C)	300 mg.
Vitamin B_{12}	15 micrograms
Folic Acid	3 mg.

FOLBESYN is also available in tablet form, ideal for supplementing the parenteral dose.

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WEIGHT FOR WEIGHT, THE MOST EFFECTIVE ANTI-INFLAMMATORY AGENT YET DEVELOPED FOR TOPICAL USE

TOPICAL LOTION

'ALFLORONE'

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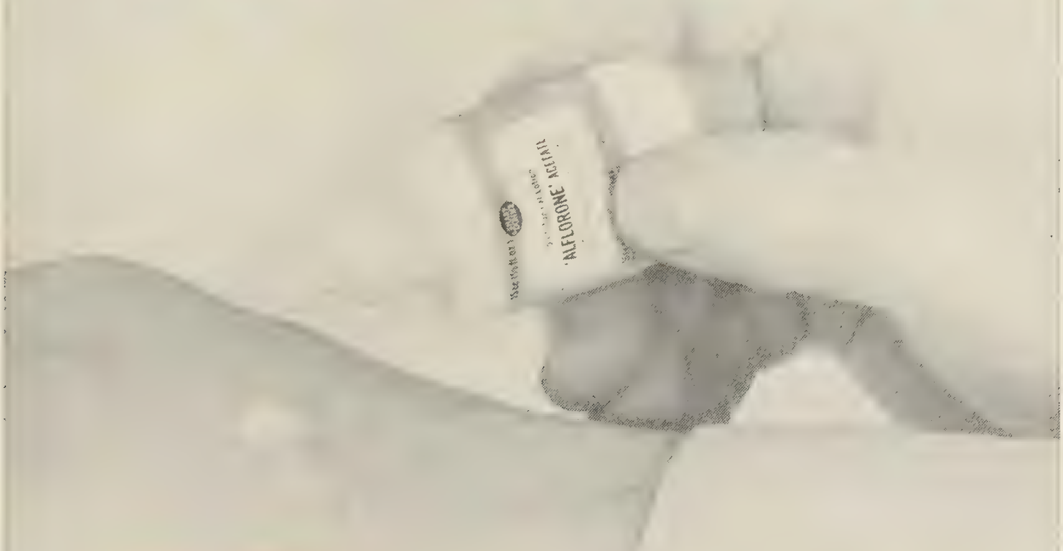
(FLUDROCORTISONE ACETATE, MERCK) 9 ALPHA-FLUOROHYDROCORTISONE ACETATE



MOST EFFECTIVE

Therapeutically active in 1/10th the concentration of hydrocortisone (Compound F).

MOST ECONOMICAL

Superior spreading qualities—a small quantity covers a wide area.

MOST ACCEPTABLE

Most patients prefer the cosmetic advantages of this easy-to-apply, smooth spreading lotion.

Supplied: Topical Lotion Alflorone Acetate: 0.1% and 0.25%, in 15-cc. plastic squeeze bottles. Topical Ointment Alflorone Acetate: 0.1% and 0.25%, 5-Gm., 15-Gm., and 30-Gm. tubes. Topical Ointment Hydroderm: 1% and 2.5% hydrocortisone with 3.5 mg. neomycin base and 1,000 units zinc bacitracin per gram, 5-Gm. tubes.

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BOOKS RECEIVED

BASIC SURGICAL SKILLS—A Manual with Appropriate Exercises. Robert Tauber, M.D., F.A.C.S., Assistant Professor of Gynecology and Obstetrics, Graduate School of Medicine, University of Pennsylvania, W. B. Saunders Company, Philadelphia, 1955. 75 pages, illustrated, $3.75.

BODY FLUIDS, THE—Basic Physiology and Practical Therapeutics. J. Russell Elkington, M.D., Associate Professor of Medicine, University of Pennsylvania School of Medicine, and T. S. Danowski, M.D., Rensiehausen Professor of Research Medicine, University of Pittsburgh School of Medicine. The Williams and Wilkins Company, Baltimore, 1955. 626 pages, $10.00.

CANCER CELLS. F. W. Cowdry, Director, Vernse Cancer Research Laboratory, Washington University, St. Louis; Formerly President, American Association for Cancer Research. W. B. Saunders Company, Philadelphia, 1955. 677 pages, 137 figures, $16.00.

CARDIAC DIAGNOSIS—A Physiologic Approach. Robert F. Rushmer, M.D., Associate Professor of Physiology and Biophysics, University of Washington Medical School, W. B. Saunders Company, Philadelphia, 1955. 447 pages, $11.00.

CARDIOVASCULAR SURGERY—Studies in Physiology, Diagnosis and Techniques. Henry Ford Hospital, International Symposium. Edited by Conrad R. Lam, M.D., Surgeon-in-Charge, Division of Thoracic Surgery, Henry Ford Hospital. W. B. Saunders Company, Philadelphia, 1955. 543 pages, $12.75.

CHEMOTHERAPY OF TUBERCULOSIS—Transactions of the 14th Conference, February 7-10, 1955. Prepared and Edited by the Veterans Administration Area Medical Office, Atlanta, Ga., and the Department of Medicine and Surgery, Central Office, Washington 25, D. C. 556 pages.

CLASSIFICATION FOR MEDICAL LITERATURE—Fourth Edition. Eileen R. Cunningham, Librarian and Professor of Medical Library Science, Vanderbilt University School of Medicine. Vanderbilt University Press, Nashville 5, Tenn., 1955. 148 pages, $2.75.

CLINICAL PATHOLOGIC CONFERENCES OF COOK COUNTY HOSPITAL — Vol. I — Cardiovascular - Renal Problems. Edited by Hans Popper, M.D., Ph.D., Director, Department of Pathology, Cook County Hospital, Associate Professor of Pathology, Northwestern University Medical School, and Daniel S. Kushner, M.D., Associate Director of Medical Education, Cook County Hospital; Clinical Assistant in Medicine and Fellow in Pathology, Northwestern University Medical School. The Blakiston Company, Inc., New York, 1954. 325 pages, $5.00.

EXPERIMENTAL PSYCHOLOGY—A Series of Broadcast Talks on Recent Research. A. J. Watson, Harry Kay, J. A. Deutsch, B. A. Farrell, Michael Argyle, R. C. Oldfield. Edited by B. A. Farrell. Philosophical Library, 15 East 40th Street, New York, N. Y. 66 pages, $2.75.

EXPRESSION OF THE EMOTIONS IN MAN AND ANIMALS, THE. Charles Darwin, M.A., F.R.S. Philosophical Library, New York, 1955. 372 pages, $6.00.

HEMORRHAGIC DISORDERS, THE—A Clinical and Therapeutic Approach. Mario Stefanini, M.D., Associate Professor of Medicine, Tufts University School of Medicine, and William Dameshek, M.D., Professor of Medicine, Tufts University School of Medicine. Grune & Stratton, New York, 1955. 368 pages, $11.75.

HIGH BLOOD PRESSURE. George White Pickering, M.A., M.B. (Cantab.), M.D. (Ghent), F.R.C.P., Professor of Medicine in the University of London, Physician to St. Mary's Hospital, London. Grune & Stratton, New York, 1955. 547 pages, 106 illustrations, $9.50.

LEONARDO THE ANATOMIST. Elmer Belt, M.D. University of Kansas Press, Lawrence, Kansas, 1955. 76 pages, $2.00.

MENTAL HYGIENE IN PUBLIC HEALTH — Second Edition. Paul V. Lemkau, M.D., Professor of Public Health Administration, Division of Mental Hygiene, Johns Hopkins University. McGraw-Hill Book Company, Inc., New York, 1955. 485 pages, $8.00.

OFFICE PROCEDURES. Paul Williamson, M.D. W. B. Saunders Company, Philadelphia, 1955. 412 pages, $12.50.

OLD AGE IN THE MODERN WORLD—Report of the Third Congress of the International Association of Gerontology, London, 1954. E. & S. Livingstone Ltd., London, 1955. Distributed in U. S. A. by Williams and Wilkins Company, Baltimore, Maryland, 1955. 647 pages, $10.00.

POLYCYTHEMIA — Physiology, Diagnosis and Treatment Based on 303 Cases. John H. Lawrence, M.D., D.Sc., F.A.C.P., Director, Donner Laboratory, Professor of Medical Physics, Physician-in-Chief, Donner Pavilion, University of California, Berkeley. Grune & Stratton, New York, 1955. 136 pages, 38 figures, $5.50.

POSTURAL COMPLEX, THE — Observations as to Cause, Diagnosis and Treatment. Laurence Jones, B.S., M.D., Chief Orthopedist, Menorah Hospital, 1932-1943, Kansas City, Mo., Visiting Orthopedist, Cedars of Lebanon Hospital, 1944-1953; Midway Hospital, 1948-1954, Los Angeles. Charles C. Thomas, Publisher, Springfield, Ill., 1955. 156 pages, $9.75.

PREMATURE INFANTS—A Manual for Physicians—Second Edition. Ethel C. Dunham, M.D., Formerly Associate Clinical Professor of Pediatrics, Yale University School of Medicine; Director, Division of Research in Child Development, U. S. Children's Bureau. Paul B. Hoeber, Inc., 49 East 33rd Street, New York 16, N. Y., 1955. 459 pages, $8.00.

PRESENT-DAY PSYCHOLOGY—An Original Survey of Departments, Branches, Methods, and Phases, Including Clinical and Dynamic Psychology. Edited by A. A. Roback, Philosophical Library, New York, 1955. 995 pages, $12.00.

PROGRESS IN NEUROLOGY AND PSYCHIATRY—An Annual Review—Volume X, 1955. Edited by E. A. Spiegel, M.D., Professor and Head of the Department of Experimental Neurology, Temple University School of Medicine, Philadelphia. Grune and Stratton, New York, 1955. 645 pages, $10.00.

RESTRICTED SODIUM DIET, THE—Compiled under the Supervision of the Diets and Dietary Products Committee of the Los Angeles County Heart Association. Elizabeth Reisinger, Editor. Los Angeles County Heart Association, 316 South Bonnie Brae Street, Los Angeles 57, 1955. 64 pages. Available through any County Heart Association.

SHOULD THE PATIENT KNOW THE TRUTH?—A Response of Physicians, Nurses, Clergymen and Lawyers. Edited by Samuel Standard, M.D., and Helmuth Nathan, M.D. Spinger Publishing Company, Inc., 44 East 23rd Street, New York 10, 1955. 160 pages, $3.00, hard cover, and $2.00, soft cover.

TEXTBOOK OF ENDOCRINOLOGY — Second Edition. Edited by Robert H. Williams, M.D., Executive Officer and Professor of Medicine, University of Washington Medical School. W. B. Saunders Company, Philadelphia, 1955. 776 pages, 175 figures, $13.00.

TEXTBOOK OF OCCUPATIONAL THERAPY — With Chief Reference to Psychological Medicine. Eamon N. M. O'Sullivan, B.A., M.B., D.P.M. Philosophical Library, Inc., New York, 1955. 319 pages, $10.00.

THYROID, THE — A Fundamental and Clinical Text. Edited by Sidney C. Warner, M.D., Sc.D. (Med.), Editor. With Sixty Contributors. Paul B. Hoeber, Inc., Medical Department of Harper & Brothers, New York, 1955. 789 pages, $20.00.

WASHINGTON REPORT

(Continued from Page 126)

one of A.M.A.'s five representatives on the group. American Psychiatric Association also has five members and 19 other professional and governmental organizations have one representative each. Dr. M. Brewster Smith, of New York, representing Social Science Research Council, is vice-president, and Charles Schlaifer, also of New York, is secretary-treasurer. He represents National Association for Mental Health.

Surplus Property Gifts Are Mounting Steadily

Donations of federal surplus property to medical, hospital and educational institutions are increasing steadily. In June, when liberalizing legislation was signed by President Eisenhower, acquisition value of donated supplies and equipment was $13 million. It rose to $17 million in July and $19 million in August. September figure, when available, is expected to disclose another increase. Idaho is only state not participating in distribution program. Arizona qualified recently and Alaska's plan is awaiting approval.

MacCartney Elected Head of Pharmaceutical Assn.

American Pharmaceutical Association offices in Washington have announced results of mail balloting in election of national officers. President-elect is John A. MacCartney, of Detroit, a manufacturing pharmacist. New vice-presidents are Ronald V. Robertson, of Spokane, and John J. Dugan, of New Haven, both practicing pharmacists. Installation will be at annual convention in Detroit the week of April 8, 1956. Retiring president of A.Ph.A. is John B. Heinz, of Salt Lake City.

Directory Shows Growth of NRC Medical Division

Published recently was 1955-56 directory of National Research Council's Division of Medical Sciences. Its increased size testifies to division's broadened responsibilities as a gatherer of technical information. The mimeographed directory lists staff members, executive committeemen, organizational representatives and members of specialty committees. There are now committees on the following:

Problems of Alcohol; Army Medical Education; Atomic Casualties; Cancer Diagnosis and Therapy; Dentistry; Drug Addiction and Narcotics; Medical Fellowship Board; Medicine and Surgery (with 10 subcommittees); International Union Against Cancer; Postdoctoral Fellowship; Naval Medical Research; Ophthalmology; Pathology; Psychiatry; Radiation Cataracts; Radiology; Sanitary Engineering and Environment (with seven subcommittees); Research in Problems of Sex; Veterans Medical Problems; Growth (with seven sections and eleven different panels).

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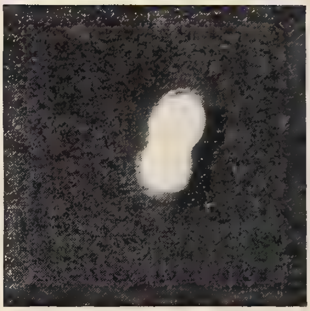
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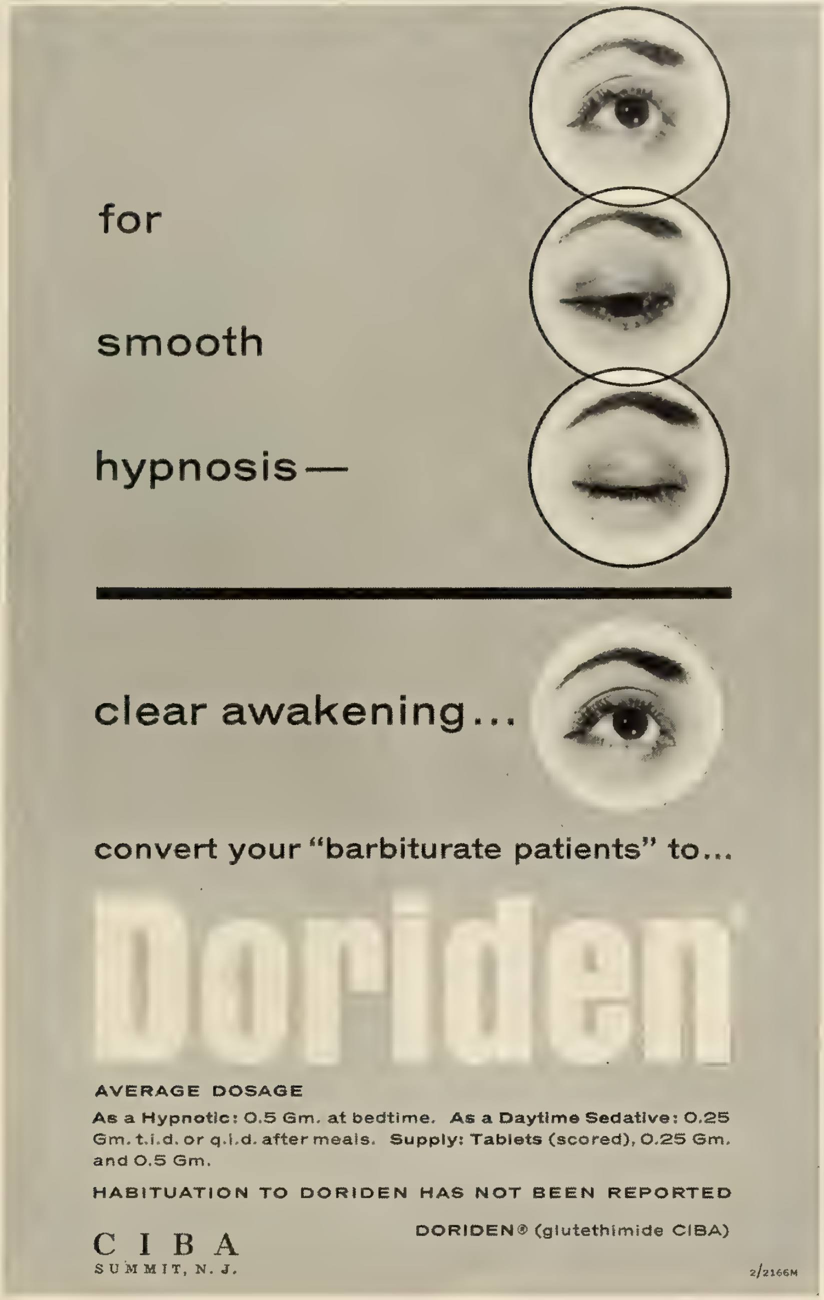

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J. Lafe Ludwig, *Los Angeles*...1957
Berthel H. Henning (Chairman), *San Francisco*...1958

Committee on Other Professions

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Wayne Pollock (Chairman), *Sacramento*...1958

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Arthur A. Kirchner, *Los Angeles*...1957
Arlo A. Morrison (Secretary), *Ventura*...1957
T. Eric Reynolds, *Oakland*...1958
Joseph F. Sadusk, Jr. (Chairman) *Oakland*...1958

Committee on Health and Accident Insurance

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T. Eric Reynolds, *Oakland*...1957
Arthur A. Kirchner (Chairman), *Los Angeles* 1958

Committee on Unlawful Practice of Medicine

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Ewing L. Turner, *Los Angeles*...1956
Donald Cass, *Los Angeles*...1957
John W. Green, *Vallejo*...1957
Harold P. Malony, *Oakland*...1957
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*Ataractic, from ataraxia: calmness untroubled by mental or emotional excitation. (Use of term suggested by Dr. Howard Fabing at a recent meeting of the American Psychiatric Association.)

ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to notify California Medicine promptly when changes are indicated in their roster information.)

Alameda-Contra Costa Medical Assn., 6230 Claremont Avenue, Oakland 18. Meets Third Monday, 8:15 p.m., Hunter Hall, Oakland.

Pres., Harold P. Maloney, 411 30th St., Oakland.

Secy., Thomas Dozier, 512 5th St., Antioch.

Butte-Glenn Medical Society. Meets Fourth Thursday.

Pres., Frank O'Neill, 1334 Myers St., Oroville.

Secy., Phillip Morgans, 360 E. 1st St., Chico.

Fresno County Medical Society, 616 Security Bank Building, Fresno. Meets Second Tuesday, 6:30 p.m., Sunnyside Country Club.

Pres., Charles S. Mitchell, 1316 Olive Ave., Fresno.

Secy., William L. Argo, 1759 Fulton, Fresno.

Humboldt County Medical Society. Meets Second Thursday.

Pres., Shiras Jarvis, 730 7th St., Eureka.

Secy., Herman A. Iverson, 507 F St., Eureka.

Imperial County Medical Society. Meets Second Tuesday, 8 p.m., Pioneer Memorial Hospital, Brawley.

Pres., Edgar A. Thompson, Pioneer Memorial Hospital, Brawley.

Secy., Ernest Brock, 200 S. Imperial Ave., Imperial.

Inyo-Mono County Medical Society. Meets Fourth Tuesday except December, January, February.

Pres., C. L. Scott, 287 Academy, Bishop.

Secy., Robert W. Denton, 611 W. Line, Bishop.

Kern County Medical Society, 2603 "G" Street, Bakersfield. Meets Third Tuesday, 7:30 p.m., Stockdale Country Club except June, July, August.

Pres., J. M. Hayes, 2531 G St., Bakersfield.

Secy., John R. Almklov, 2441 G St., Bakersfield.

Kings County Medical Society. Meets Second Monday, 8:00 p.m., Legion Hall, Hanford.

Pres., Edwin E. Kerr, Van Sicklen Bldg., Hanford.

Secy., Howard A. Francis, Van Sicklen Bldg., Hanford.

Lassen-Plumas-Modoc County Medical Society. Meets on call.

Pres., Charles W. Brown, Western Pacific Hospital, Portola.

Secy., William B. McKnight, Quincy.

Los Angeles County Medical Assn., 1925 Wilshire Blvd., Los Angeles 57. Meets First and Third Thursdays, 1925 Wilshire Blvd., Los Angeles.

Pres., Ewing L. Turner, 1930 Wilshire Blvd., Los Angeles 57.

Secy., J. Norman O'Neill, 1930 Wilshire Blvd., Los Angeles 57.

Madera County Medical Society.

Pres., Gilbert G. Daggett, 500 E. Yosemite Ave., Madera.

Secy., Robert B. Rowe, 525 E. Yosemite Ave., Madera.

Marin County Medical Society, 817 "D" St. San Rafael. Meets Fourth Thursday of every month, 7:00 p.m.

Pres., C. W. Russell, 817 "D" St., San Rafael.

Secy., Wm. Burgett Smith, 817 "D" St., San Rafael.

Mendocino-Lake County Medical Society

Pres., Martin S. Barnes, 615 Main, Fort Bragg.

Secy., Neely E. Bradford, Box D, Boonville.

Merced County Medical Society. Meets Fourth Thursday, Hotel Tioga, Merced.

Pres., Harry R. Maytum, 595 East 26th St., Merced.

Secy., Gerald D. Wood, 544 West 25th St., Merced.

Monterey County Medical Society, P. O. Box 308, Salinas. Meets First Tuesday.

Pres., Chester G. Moore, 484 S. Main St., Salinas.

Secy., Seymour Turner, 921 E. Alisal St., Salinas.

Napa County Medical Society. Meets Second Wednesday.

Pres., Wrenshall A. Oliver, Box "A," Imola.

Secy., Robert C. Ashley, 2560 Jefferson St., Napa.

Orange County Medical Association, 1226 N. Broadway, Santa Ana. Meets First Tuesday, 7:00 p.m.

Pres., Ralph E. White, 203 E. 8th St., Santa Ana.

Secy., Chad M. Harwood, 1202 N. Broadway, Santa Ana.

Placer-Nevada-Sierra County Medical Society. Meets every second Wednesday of each month.

Pres., D. M. Kindopp, 1130 Lincoln Way, Auburn.

Secy., T. J. Rossitto, 1166 High St., Auburn.

Riverside County Medical Association, 4241 Market Street, Riverside. Meets Second Monday, 8:00 p.m., El Loro Room, Mission Inn.

Pres., Richard N. Boylan, 3616 Main St., Riverside.

Secy., Vean M. Stone, 4241 Market St., Riverside.

Sacramento Society for Medical Improvement, 2731 Capitol Ave., Sacramento. Meets Third Tuesday, 8:30 p.m., Sutter Hospital Auditorium.

Pres., Jack V. Chambers, 2100 Capitol Ave., Sacramento.

Secy., Charles E. Schoff, 1116 26th St., Sacramento.

San Benito County Medical Society. Meets First Thursday, Hazel Hawkins Memorial Hospital, Hollister.

Pres., E. C. Sheldon, 1610 Cienega Road, Hollister.

Secy., E. Nelson Moore, 1470 Buena Vista Road, Hollister.

San Bernardino County Medical Society, 615 D St., San Bernardino. Meets First Tuesday, 8:00 p.m., San Bernardino County Charity Hospital.

Pres., Frank C. Melone, 124 F St., Ontario.

Secy., Wendell L. Ogen, 615 D St., San Bernardino.

San Diego County Medical Society, 101 Medical-Dental Bldg., San Diego 1. Meets Second Tuesday, Mission Valley Country Club, 950 West Camino Del Rio.

Pres., Ralph B. Mullenix, 3415 Sixth Ave., San Diego 3.

Secy., James I. Knott, 3712 30th St., San Diego 4.

San Francisco Medical Society, 250 Masonic Ave., San Francisco 18. Meets Second Tuesday, 8:15 p.m., 250 Masonic Ave., San Francisco 18.

Pres., Herbert C. Moffitt, Jr., 250 Masonic Ave., San Francisco 18.

Secy., Robert C. Combs, 250 Masonic Ave., San Francisco 18.

San Joaquin County Medical Society. Meets First Thursday, 8:15 p.m., 936 N. Commerce St., Stockton.

Pres., John F. Mayo, 310 W. Pine St., Lodi.

Secy., Frank A. McGuire, 305 Medico-Dental Bldg., Stockton.

San Luis Obispo County Medical Society. Meets Third Saturday, 7:00 p.m., Anderson Hotel, San Luis Obispo.

Pres., Emil C. Oberson, Marsh at Garden Sts., San Luis Obispo.

Secy., Tibor A. Beresky, 1304 Garden St., San Luis Obispo.

San Mateo County Medical Society, 122 Second Ave., San Mateo. Meets Third Tuesday of each month.

Pres., James S. Edwards, 36 N. San Mateo Dr., San Mateo.

Secy., Henry A. Brown, 77 N. San Mateo Dr., San Mateo.

Santa Barbara County Medical Society, 300 West Pueblo St., Santa Barbara. Meets Second Monday, Cottage Hospital.

Pres., J. Gary Campbell, 1525 State St., Santa Barbara.

Secy., A. E. Wentz, 300 West Pueblo St., Santa Barbara.

Santa Clara County Medical Society, 1024 The Alameda, San Jose 26. Meets Third Monday of every month, except in July and August.

Pres., Pierce C. Barrette, 634 E. Santa Clara St., San Jose.

Secy., Henry C. Dahleen, 652 E. Santa Clara St., San Jose.

Santa Cruz County Medical Society. Meets every Second month, Second Tuesday. Time, place to be announced.

Pres., H. S. Barr, 850 Main St., Watsonville.

Secy., Samuel B. Randall, 230 Walnut Ave., Santa Cruz.

Shasta County Medical Society. Meets First Monday.

Pres., Rex N. Carr, 2007 Pine St., Redding.

Secy., Roland Jantzen, 1726 Market St., Redding.

Siskiyou County Medical Society. Meets Sunday on call.

Pres., Werner F. Hoyt, Lassen Lane, Mt. Shasta.

Secy., Dragutin D. Todorovic, 224 Branstetter St., Dunsmuir.

Solano County Medical Society. Meets Second Tuesday, 8:00 p.m., at different meeting places.

Pres., Melvin A. Schmutz, 650 Tennessee St., Vallejo.

Secy., John C. Miller, 1000 Marin St., Vallejo.

Sonoma County Medical Society, 300 American Trust Bldg., Santa Rosa. Meets Second Thursday.

Pres., Robert S. Westphal, 3325 Chanate Road, Santa Rosa.

Secy., Frank E. Lones, 300 American Trust Bldg., Santa Rosa.

Stanislaus County Medical Society. Meets Third Thursday of the month, 7 p.m., Hotel Covell, Modesto.

Pres., Ivan E. Martin, 1628 I St., Modesto.

Secy., Robert W. Purvis, 709 - 18th St., Modesto.

Tehama County Medical Society. Meets at call of President.

Pres., Harve Wm. Jourdan, 410 Pine Street, Red Bluff.

Secy., Frank N. Townley, 304 East Solano, Corning.

Tulare County Medical Society.

Pres., J. J. McNearney, 140 N. M St., Tulare.

Secy., Gordon L. Jackson, P.O. Box 345, Terra Bella.

Ventura County Medical Society. Meets Second Tuesday, 7:15 p.m., Colonial House, Oxnard.

Pres., R. F. Robertson, 813 Yale, Santa Paula.

Secy., F. K. Helbling, 34 N. Ash St., Ventura.

Yolo County Medical Society. Meets First Wednesday.

Pres., Thomas Y. Cooper, 218 F St., Davis.

Secy., Neil D. Elzey, Woodland Clinic, Woodland.

Yuba-Sutter-Colusa County Medical Society. Meets Second Tuesday.

Pres., John F. Belz, 725 4th St., Marysville.

Secy., Robert I. Hodgin, 729 D St., Marysville.

(For roster of C.M.A. committees and other organizations, see last month's issue.)

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Physicians to Take Active Part in California Conference on Rural Health

"Operation Success" is the theme for the second annual California Conference on Rural Health to be held January 20-21, 1956, at the Fresno Hacienda in Fresno.

Physicians throughout California are providing active leadership and interest in the conference which is sponsored by the California Rural Health Council of which the California Medical Association is a member. Heading up the conference program committee is Dr. Carroll B. Andrews, Sonoma. Dr. Robb Smith, Orange Cove, is the California Medical Association representative on the Rural Health Council and is chairman of the conference evaluation and summary committee.

Other physicians and their discussion topics include: Dr. Thomas N. Elmendorf, Willows, "Butte County Public Health Survey"; Dr. Charles W. Jeffries, Point Arena, "Getting a Doctor—and Keeping Him"; Dr. James E. Feldmayer, Exeter, "Planning and Building Our Hospital"; and Dr. Francis T. Hodges, San Francisco, "A Physician Looks at Rural Medical Services."

A feature of the session will be a modified exhibit of the Fresno County "West Side" Agricultural Labor project with discussions by people who are actually doing the work. Dr. Benjamin E. Packer, Fresno, will discuss the role of the Fresno County Medical Society and his work at the health center.

Aubrey D. Gates, field director of the American Medical Association's Council on Rural Health, will moderate the conference and Glenn Gillette of the California Medical Association's Public Relations Department is chairman of the publicity committee.

Health insurance, home nursing programs, the new dental care insurance program of the State Dental Association, hospital costs and how the farmer can improve his health coverage will be discussed by experts in their fields. There will be ample opportunity for audience participation. Some 400 people are expected to attend the conference.

Nadine Costner, field secretary of the young people's department of the California Farm Bureau Federation, will conclude the conference with a talk on "Youth Views the Future of Successful Health."

A. E. O'Donnell of the California Farm Bureau Federation is general chairman of the conference.

Member organizations of the Rural Health Council are: California Medical Association; the California Farm Bureau Federation; State Department of Public Health; California Academy of General Practice; California Congress of Parents and Teachers; Agricultural Extension Service and School of Public Health of the University of California.

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Rockefeller Foundation Grants Favor Medicine

During the year 1954 the Rockefeller Foundation made grants of $5,102,796 for medicine and public health, out of a total of $19,107,665. In addition, out of 334 fellows active during the year, 149 were studying in the field of medicine and public health. On medical education: "The foundation's long interest in medicine continues to move toward strong support for professional education, with special attention to key institutions in countries which are struggling to bring their medical services up to the standards of modern scientific medicine." On medical research: "The principal contribution the . . . foundation is making to the investigation and control of specific diseases is its virus program . . . a broad study of insect-borne viruses capable of attacking man . . ." Medical grants during 1954 include $400,000 to Washington University School of Medicine for research and training in skin disorders, $150,000 to the National Research Council's Committee in Problems of Sex, $121,275 to the University of Saskatchewan in Canada for studies of schizophrenia, and $275,000 to Harvard University for research and teaching of complete family medical care.

—*A.M.A. Washington Letter*

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COOK COUNTY
Graduate School of Medicine
INTENSIVE POSTGRADUATE COURSES
STARTING DATES—WINTER, 1956

SURGERY—Surgical Technic, Two Weeks, January 23, February 6.
  Surgical Anatomy & Clinical Surgery, Two Weeks, March 5.
  Surgery of Colon & Rectum, One Week, February 27, April 9.
  General Surgery, One Week, February 13, Two Weeks, April 23.
  Basic Principles in General Surgery, Two Weeks, April 9.
  Gallbladder Surgery, Ten Hours, April 9.
  Fractures & Traumatic Surgery, Two Weeks, March 12.
GYNECOLOGY—Office & Operative Gynecology, Two Weeks, February 13, March 12.
  Vaginal Approach to Pelvic Surgery, One Week, February 6, March 5.
OBSTETRICS—General & Surgical Obstetrics, Two Weeks, February 27, March 26.
MEDICINE—Internal Medicine, Two Weeks, May 7.
  Electrocardiography & Heart Disease, Two-Week Basic Course, March 12.
  Gastroscopy, Forty-Hour Basic Course, March 19.
  Dermatology, Two Weeks, May 7.
RADIOLOGY—Diagnostic X-Ray, Two Weeks, February 6.
  Clinical Use of Radioactive Iodine, One Week, April 2.
  Clinical Uses of Radioisotopes, Two Weeks, May 7.
PEDIATRICS—Intensive Review Course, Two Weeks, May 14.
  Neurological Diseases; Cerebral Palsy, Two Weeks, June 18.
UROLOGY—Two-Week Course, April 16.
  Cystoscopy, Ten Days, by appointment.

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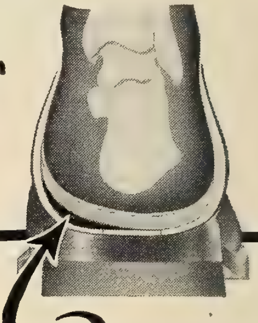

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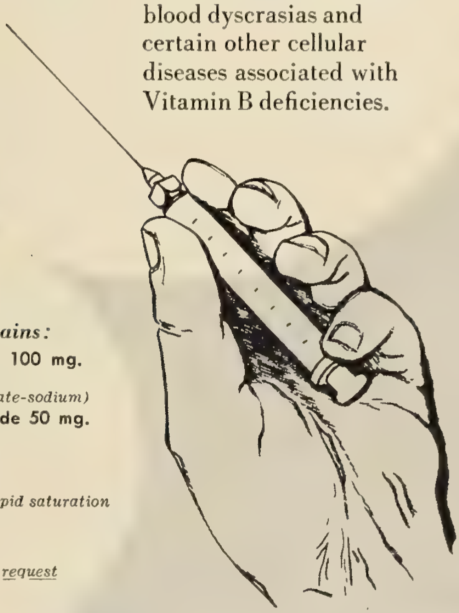

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New Artificial Respiration Method Described

A new method of manual artificial respiration for children in the helpless age—under two years—has been proposed by a United States Navy Medical Corps officer.

The method, which depends on the movement of the child's own internal organs, is outlined in a recent issue of the *Journal of the American Medical Association* by Capt. H. J. Rickard, U. S. Naval Air Missile Test Center, Point Mugu, California.

In the Rickard "prone tilting—visceral shift method," the child is laid face down on the outstretched forearm with the head in the operator's hand and the legs straddling the elbow joint. The operator's arm is moved in "see-saw" fashion, so the child's body is raised and lowered. This makes the abdominal viscera push and pull on the diaphragm, forcing air in and out of the lungs.

Capt. Rickard made the proposal because of "the critical need for a practical, safe and efficient method of artificial respiration" for these small children, who have more opportunity for accidental asphyxiation than any other age group.

In addition, accidents—broken ribs and punctured lung tissue—have occurred during resuscitation by the regular external pressure methods, because of the difference in weight between the child and the adult giving artificial respiration.

The method is intended for children ranging in weight from seven to 28 pounds, or those from one week to two years old. Capt. Rickard pointed out that some two-year-olds have developed sufficiently so that the arm lift-back pressure method may be used with some caution.

The procedure is simple, requires no great effort, and is easily learned, Capt. Rickard said. It is safe because the external pressures are replaced by internal pressures. It also provides for an airway through the mouth by use of a finger to hold the tongue down.

A step-by-step outline of the procedure follows:

1. Position of the child: The middle finger of the right hand is placed in the child's mouth, over the tongue, in order to draw the tongue slightly forward and depress it into the floor of the mouth. This provides the airway.

The other fingers are placed on either side of the lower jaw to support the head. The child is placed in a face-down (prone) position on the right forearm with the arms and legs straddling the arm. The left hand is placed palm down across the back with fingers spread on either side of the neck and hooking across the shoulders to hold the child in place.

(Continued on Page 26)

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New Artificial Respiration Method Described

(Continued from Page 20)

2. Position of the operator: He rises to a standing position with the child draped along the forearm, which is kept parallel to the ground. The upper arm is kept close to the body in order to support the weight of the child.

The operator may also kneel or sit with the right elbow resting on the right knee cap. However, the right knee must be kept high enough from the ground to insure sufficient room for lowering the child's body.

3. Expiratory phase: The procedure always begins with the breathing-out phase. The forearm is lowered approximately 45 degrees, placing the child in a head-down position. The abdominal viscera shift toward the chest and push against the diaphragm, forcing the air out of the lungs. At the same time fluids and debris drain from the mouth.

4. Inspiratory phase: For the breathing-in phase, the forearm is raised to about 45 degrees, which places the child in a head-up position. The abdominal viscera shift downward, causing a pull or tug on the diaphragm which results in air being sucked into the lungs.

5. Rate and rhythm: The rate of tilting is between eight and 12 times a minute. To do this the operator repeats, "Out goes the bad air, in comes the good air," for a complete cycle of 12 times a minute. For

(Continued on Page 38)

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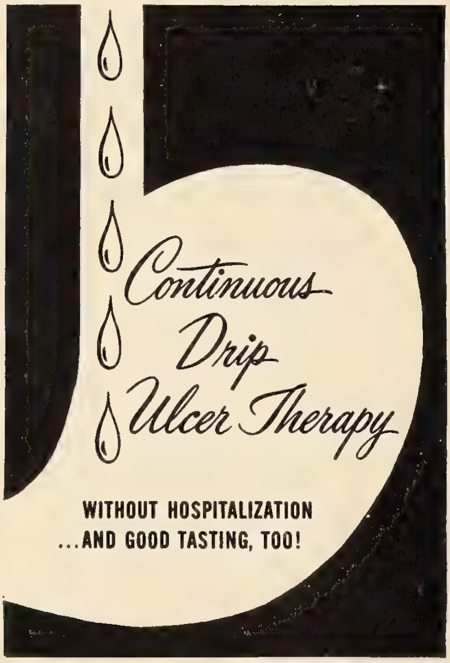

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The delicately flavored tablets dissolve slowly in the mouth (not to be chewed or swallowed). They are not noticeable and do not interfere with speech.

Nulacin tablets are supplied in tubes of 25 at all pharmacies. Physicians are invited to send for reprints and clinical sample.

*Steigmann, F., and Goldberg, E.: Ambulatory Continuous Drip Method in the Treatment of Peptic Ulcer, Am. J. Digest. Dis. *22*:67 (Mar.) 1955.

†Mg trisilicate 3.5 gr.; Ca carbonate 2.0 gr.; Mg oxide 2.0 gr.; Mg carbonate 0.5 gr.

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Each capsule contains:

AUREOMYCIN (Chlortetracycline Lederle)	250 mg.	Thiamine Mononitrate	2.5 mg.	Calcium Pantothenate	5 mg.
Ascorbic Acid	75 mg.	Riboflavin	2.5 mg.	Vitamin B_{12}	1 mcgm.
		Niacinamide	25 mg.	Folic Acid	0.375 mg.
		Pyridoxine HCl	0.5 mg.	Vitamin K (Menadione)	0.5 mg.

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Rauwolfia Sometimes Has Reverse Effect

A drug which has been used extensively to treat mental illness may sometimes have a reverse effect —causing depression and anxiety—when given in large doses for high blood pressure.

Rauwolfia serpentina (Raudixin) and its derivative, reserpine (Serpasil or Serpine) apparently "trigger" mental difficulties in "somewhat unstable" individuals. Yet these "snakeroot" drugs have been successful in mental illness because of their tranquilizing effects.

Since the drugs are "quite useful" in treating high blood pressure, and since other side effects are not serious, it would be worthwhile if some way could be found to recognize those patients who might become depressed when given the drugs, three physicians concluded.

Drs. Richard W. Achor, Norbert O. Hanson and Ray W. Gifford, Jr., Rochester, Minn., reported in a recent issue of the *Journal of the American Medical Association* that 10 of 58 patients developed emotional upsets when given either Rauwolfia or reserpine.

The mildest form consisted of increased tenseness, restlessness, insomnia and a feeling of being very uncomfortable. Three experienced "a truly major depression," while three others were moderately depressed and four had mild but definite depressive episodes.

In another group of 70 patients followed by the Rochester physicians 15 patients developed depressive states after several months of treatment with the drug.

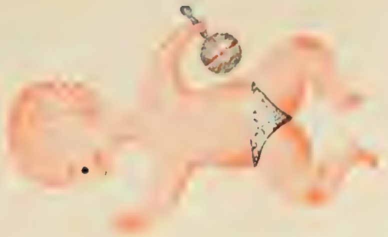
Two other reports in a recent issue of the *Journal of the American Medical Association* also tell of patients who became depressed while taking the drugs for essential hypertension.

Drs. John C. Muller, William W. Pryor, James E. Gibbons and Edward S. Orgain of Durham, North Carolina, told of seven patients (from a group of 93) who became mentally ill and were hospitalized.

Their symptoms included insomnia, inability to concentrate, despondency, feelings of anxiety, and apprehension. Two improved with a simple routine of rest, reassurance and encouragement, while the other five required electric shock therapy.

None of the seven was mentally ill at the beginning of treatment, but five gave histories of previous psychiatric illness, they said.

Two St. Louis physicians, Drs. Henry A. Schroeder and H. Mitchell Perry, Jr., reported the development of psychoses in five individuals. None had a history of mental illness, and all five recovered completely after withdrawal of the drug. Nervousness, insomnia and agitation appeared in other patients, they said.



Folic Acid ...and normal growth

When you prescribe a multivitamin product for an infant, a growing child, or a mother-to-be, make certain you choose one containing an adequate amount of Folic Acid. This B-complex vitamin is essential to the formation of all body cells, including red blood cells, and consequently, a vital factor in normal growth. Although essential to all, it assumes even greater importance during infancy and pregnancy.

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Cirrhosis in Children

Cirrhosis of the liver—a condition commonly associated with alcoholism in adults—occurs more frequently in children than is generally thought, according to three Boston physicians.

However, cirrhosis—the progressive destruction of liver cells—is quite different in children than in adults.

The most common adult form is caused by alcoholism and its resulting nutritional disturbances, while the childhood forms in the United States are usually caused by a hepatitis or by malformation of the liver and its parts which exists at birth.

The physicians reported 98 cases of cirrhosis of the liver seen at Children's Medical Center, Boston, between 1924 and 1953. Sixty-one were caused by obstructions and deformities of the liver, while 30 were associated with hepatitis. Seven resulted from miscellaneous causes, including heart, blood and bile duct disorders.

The frequency of cirrhosis associated with hepatitis is "surprising and important," the physicians said, suggesting that hepatitis is not entirely harmless among children. It emphasizes the need for recognizing mild cases of hepatitis without jaundice and the careful follow-up of known cases after signs and symptoms have disappeared, they said.

They noted hypothetically that hepatitis in infants may be acquired before birth from mothers who have been infected through blood transfusions but show no symptoms themselves.

The Boston cases of cirrhosis differ greatly from those of children in India, Africa and the West Indies, where the disease apparently is caused by nutritional deficiencies, they said. None of the American children were suffering from protein or vitamin lack.

The symptoms of the disease and the changes in the liver vary with the different forms of cirrhosis. No signs of the common "alcoholic" cirrhosis appeared in the children. Instead of becoming damaged and replaced by fibrous tissue over a long period of years as in the common adult form, the child's liver either degenerates rapidly or makes a quick recovery, they said.

The report in a recent issue of the *American Journal of Diseases of Children*, published by the American Medical Association, was made by Drs. John M. Craig, Sydney S. Gellis and David Yi-Yung Hsia of the departments of pathology and pediatrics at Harvard Medical School and the Children's Medical Center.

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ACHROMYCIN (Tetracycline Lederle)	250 mg.
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Niacinamide	25 mg.
Pyridoxine HCl	0.5 mg.
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Nail Polish Sealer Used for Fungal Infection

A Miami physician has outdone the proverbial female who fixes everything with a hairpin or a little nail polish.

Dr. Hollis F. Garrard has successfully used nail polish sealer in treating a fungal infection of the fingers and nails.

He said the sealer acts as an "artificial cuticle" and keeps water and foreign material from getting under the loose skin around the nail. The sealer is applied to the nail and nail fold in the morning and left on until bedtime when it is removed and another medication applied.

The sealer, Dr. Garrard said, is superior to rubber gloves or finger cots in protecting the infected nails because it is always present and is invisible.

Dr. Garrard, who has used the method on 59 patients with monilial paronychia, reported the technique in a recent issue of *Archives of Dermatology*, published by the American Medical Association.

New Artificial Respiration Method Described

(Continued from Page 26)

a rate of eight times a minute, he adds the word, "and," between the two phrases.

The expiratory phase always begins with the word, "out," and the inspiratory phase with the word, "in."

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DOSAGE: Merely two 2 mg. tablets at bedtime. After full effect 1 tablet usually suffices. Available in bottles of 60, an average month's supply.

FIRST THOUGHT IN HYPERTENSION

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Polio Virus Test Used in Polio-Like Illness

The "tissue culture" method by which polio viruses are isolated now can be used to identify one of the unknown or "orphan viruses" found in patients with polio symptoms but with no apparent polio infection.

Two Seattle physicians recently stated that by using this method they found a "high percentage" of polio-diagnosed patients reacted negatively to polio tests, but did have infection with Coxsackie viruses. One of these viruses is believed to cause aseptic meningitis—which has the same symptoms as polio.

This means that it is now possible—and necessary—to test for Coxsackie virus before designating nonpolio viruses as "orphans," which is commonly done.

They said the "most striking" feature of their study at King County Hospital, Seattle, was the high percentage (27.4) of patients with an initial diagnosis of polio from whom viruses other than polio were recovered.

The 14 patients (out of 51 diagnosed as having polio) had fever, headache, stiffness of the neck and back, and changes in the spinal fluid content. Their illness, finally diagnosed as aseptic meningitis, was

(Continued on Page 50)

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resistant staphylococci…

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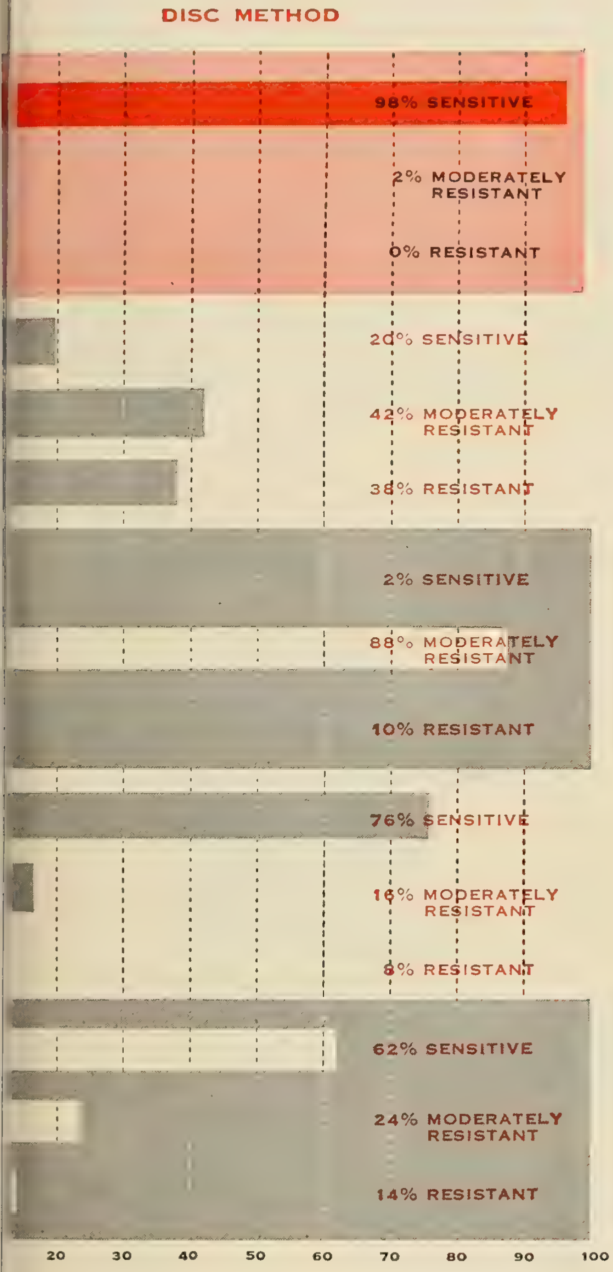

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for today's problem pathogens

The increasing incidence of infections due to antibiotic resistant staphylococci poses a major clinical problem.[1-4] This is true even when recently introduced antibiotic agents are employed.[2,3,5] Recent laboratory investigations, however, show that development of staphylococcic resistance to CHLOROMYCETIN (chloramphenicol, Parke-Davis) is seldom encountered,[3,6-8] In fact, CHLOROMYCETIN "…is being used increasingly in staphylococcic infections resistant to other antibiotics."[9]

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

References: (1) Spink, W. W.: *Arch. Int. Med.* 94:167, 1954. (2) Finland, M.: *J.A.M.A.* 158:188, 1955. (3) Tebrock, H. E., & Young, W. N.: *New York J. Med.* 55:1159, 1955. (4) LeMaistre, C.: *M. Clin. North America* 39:899, 1955. (5) Kagan, B. M.: *J.M.A. Georgia* 44:210, 1955. (6) Branch, A.; Starkey, D. H.; Rodgers, K. C., & Power, E. E., *in* Welch, H., & Marti-Ibañez, F.: Antibiotics Annual, 1954-1955, New York, Medical Encyclopedia, Inc., 1955, p. 1125. (7) Kutscher, A. H.; Seguin, L.; Lewis, S.; Piro, J. D.; Zegarelli, E. V.; Rankow, R., & Segall, R.: *Antibiotics & Chemother.* 4:1023, 1954. (8) Weil, A. J., & Stempel, B.: *Antibiotic Med.* 1:319, 1955. (9) Jones, C. P.; Carter, B.; Thomas, W. L., & Creadick, R. N.: *Obst. & Gynec.* 5:365, 1955.

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Polio Virus Test Used in Polio-Like Illness

(Continued from Page 42)

similar to that of nonparalytic patients from whom polio viruses were recovered.

Five of the 14 were definitely proved to have had no recent polio infection. While polio tests were inconclusive for the rest, other tests "indicated clearly" that they were infected with Coxsackie viruses, the physicians said.

All recovered within two months, except for one patient who also yielded a polio virus. He recovered within three months.

Drs. William M. M. Kirby and Charles A. Evans reported their study in a recent issue of the *Journal of the American Medical Association.*

Labeling Ruling Issued on Aspirin To Protect Children

To protect children from accidental poisoning from overdoses of aspirin and other salicylate drugs, Food and Drug Administration is calling on manufacturers to use conspicuous package warnings that these preparations should be kept out of the reach of children. The recommended statements are: "Warning—Keep Out of the Reach of Children," or "Warning—Keep This and All Medications Out of the Reach of Children." Instead of dosage instructions for children under three years of age, FDA recommends this statement on the label: "For Children Under 3 Years of Age, Consult Physician."

(Continued on Page 52)

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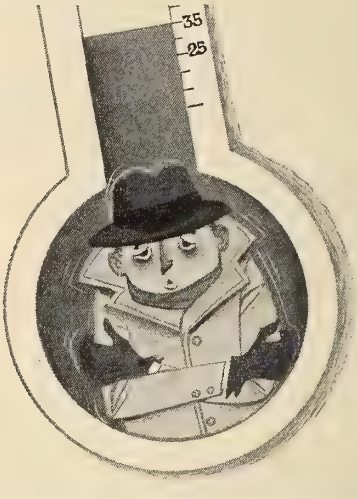

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Each capsule contains:

Pyrilamine maleate	5 mg.
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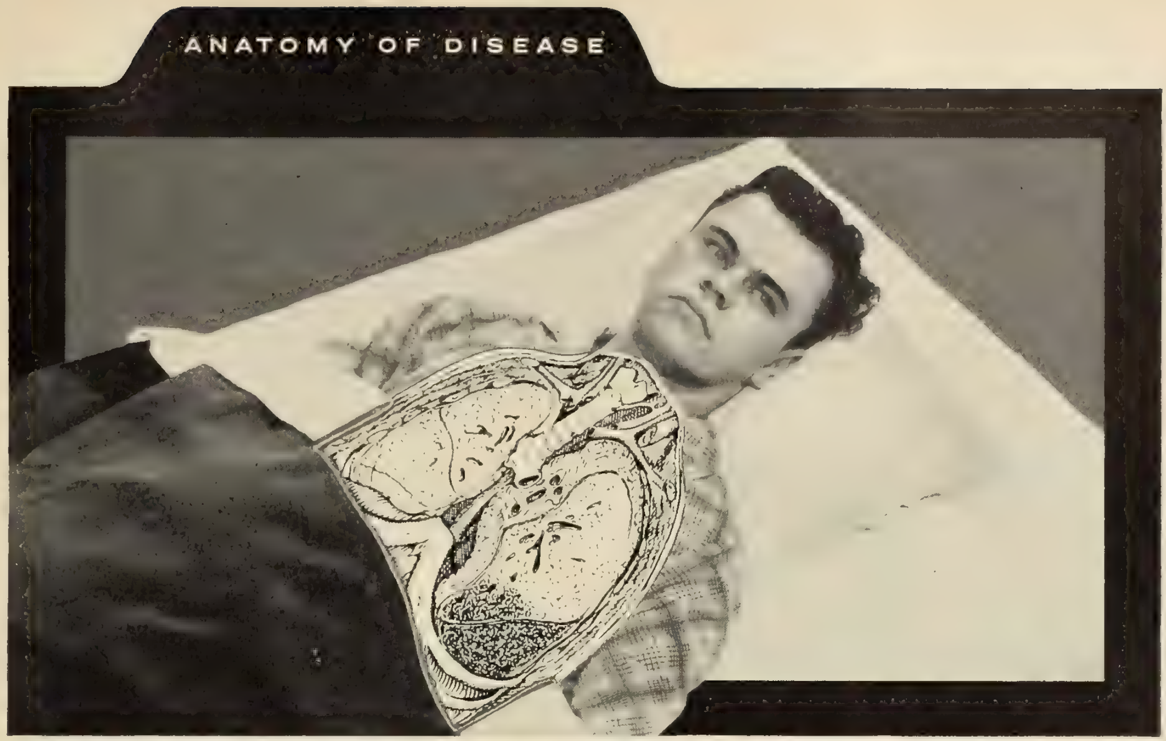
Aspirin	3½ gr.
Phenacetin	2½ gr.
Caffeine	½ gr.

Dosage: During the first day of cold, 2 capsules initially, followed by 1 capsule at 4-hour intervals. Thereafter, 1 capsule four times daily for 2 days.

Supplied: Bottles of 100, 500 and 1,000 capsules.



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Labeling Ruling Issued on Aspirin To Protect Children

(Continued from Page 50)

The advisory ruling is an outgrowth of recommendations made earlier in the year by a medical advisory panel, called in by FDA to consider how to safeguard children from accidental overdoses of these preparations.

Manufacturers have the privilege of using the recommended statements or similar language of their own choice. They are given six months to make the changeover. In announcing the ruling, FDA Commissioner George P. Larrick emphasized that manufacturers are cooperating wholeheartedly in the campaign to protect children from this type of accident, which results in about 100 deaths a year, mostly among children under five. The industry itself is about to undertake a national campaign to educate families to the dangers of accidental poisoning from various types of drugs, medicines and chemicals commonly kept in the home.

The new ruling does not apply to oil of wintergreen (which already carries a warning statement), effervescent salicylate preparations, or preparations of para-amino-salicylic acid and its salts, used only in the treatment of tuberculosis.

—*A.M.A. Washington Letter*

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Survey Public Attitudes on Drug Costs

Forty per cent of the adult population believe food costs are much too high; 45 per cent believe repair charges (TV, auto, etc.) are excessive; 27 per cent are equally critical of clothing costs, and only 26 per cent believe that the cost of medical care is much too high.

These figures are from a report of a national survey of opinions and attitudes toward medical care just released to the pharmaceutical industry by the Health Information Foundation of New York.

The study is one of several current socioeconomic surveys in health initiated by the foundation.

Findings of special interest include:

While medical costs in general come in for less criticism than other elements of the cost of living, within the category of medical costs the percentage believing costs "much too high" for doctors' fees is 16 per cent; hospital charges, 39 per cent; dentists' fees, 24 per cent; prescriptions at drug stores, 38 per cent.

Fifty-six per cent of the population cannot give the name of one company that, they believe, manufactures a new or "wonder drug."

When asked, "What are some of the things that make it easier to have good health today than it was 30 years ago?" 71 per cent cite improvements in medical knowledge and facilities and almost half the population—47 per cent—specifically refers to new drugs, medicines, and vaccines now available.

Thirty-eight per cent of the population believe the cost of prescriptions is much too high, and 28 per cent believe that costs are somewhat higher than they should be. Of those giving reasons for high cost in this category, less than half attach blame to anyone. Twenty-six per cent of those who complain of prescription costs blame the druggists, 10 per cent mention physicians and 7 per cent pharmaceutical manufacturers. An additional 16 per cent blame some unspecified "they." Some individuals mention more than one person or group.

To the question, "What people or groups do you think have been mainly responsible for these new 'wonder' drugs?" only 11 per cent of the respondents give specific credit to the drug companies, pharmaceutical houses, the chemical industry; or drug manufacturers; an additional 9 per cent mention "laboratories"; 23 per cent credit doctors, the American Medical Association, or groups of doctors; 40 per cent credit scientists, science research, or persons such as medical researchers and chemists.

—*A.M.A. Secretary's Letter*

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The Problem of Diverticulitis

Surgical Management

CLAUDE E. WELCH, *M.D.*, Boston

• *The disease of diverticulitis now is encountered with increasing frequency due to the increasing average age of our population. Low mortality following resection and anastomosis and the excellent results after this procedure have broadened the indications for operation in this disease. From 1942 to 1955, 160 such operations for diverticulitis of the sigmoid colon were carried out at the Massachusetts General Hospital with a mortality of 3 per cent. The results, except in the few cases where too conservative a resection was carried out and a secondary operation was necessary to produce a cure, have been excellent.*

THERAPEUTIC TRENDS often change very rapidly, but in few instances has the revolution been so dramatic as in the therapy of diverticulitis of the colon. This change has occurred practically entirely within the past ten to fifteen years, and, as a result, a knowledge of the benefits that surgery has to offer in the treatment of this disease has not been disseminated generally.

Perhaps it would be well to review the status of therapy of diverticulitis in the years immediately preceding World War II. At that time the disease was believed to be relatively uncommon, while most of the manifestations were regarded to be rather mild and easily handled by conservative therapy. In a few instances the changes were known to progress to a point where operation was necessary, for the same complications that shall be discussed later. In these instances colostomy was frequently done as the only surgical method of therapeusis. Most patients were left with a colostomy for a long time, although sometimes an attempt at closure of the colostomy was carried out—which was followed by reactivation of the disease in at least a third of the patients. Only rarely was actual excision of the involved segment of the colon carried out, and this was usually attended with a rather alarming mortality. Consequently, most patients with diverticulitis either suffered the discomforts of the disease, or had to submit to permanent colostomy for relief.

Documentation of the methods of treatment in the Massachusetts General Hospital in this period can be obtained from Smithwick's[4] report. Three hundred and thirty-three cases of sigmoid diverticulitis had been observed at the Massachusetts General Hospital from 1926 to 1942. Of that number, 19.2 per cent were treated surgically; resection was carried out in only 33 cases, or 10 per cent of the total. The results of resection, however, were so far superior to those of any other method of therapy that a great deal of interest was fostered in this method.

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Guest speaker's address: Presented before the First General Meeting at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

Meanwhile a similar impression was developing in other parts of the country. Pemberton, Black and Maino[2] reported a series of 301 resections from the Mayo Clinic in 1947, and other surgeons, Boyden[1] among them, began to urge an earlier surgical attack.

At present a number of factors contribute to the much more common use of curative operation in the treatment of this disease. In the first place the incidence of diverticulitis is increasing. Diverticulitis is a degenerative disease that becomes much more common with the increasing age of the patient. Practically speaking, neither diverticulosis nor diverticulitis of the sigmoid colon is seen in patients under 35 years of age, but there is an increased incidence of both with advancing age. At Massachusetts General, diverticula can be demonstrated by barium enema examination in approximately two-thirds of all patients 85 years of age, and roentgen evidence of diverticulitis can be seen in about a third of these aged persons with diverticula. As the average age of our general population increases, the number of cases of diverticulitis increases.

In the second place, newer surgical techniques have rendered operations on the colon much safer than they were 15 years ago. It is only reasonable, therefore, to expect that these benefits should be extended to more patients.

The indications for operation on these patients must be of primary concern. It is clear that operation need not be carried out for all patients who have had episodes of diverticulitis, else all hospitals would be filled with these patients. If there were some means by which the patients with what might be termed a virulent type of diverticulitis could be isolated, this would be the group for whom operation should be selected. It obviously would be of great value in this particular group to pick out the patients before the serious complications of the disease occurred and thereby be able to submit them to a one-stage resection and anastomosis, avoiding the long, cumbersome two and three-stage procedures with the unpleasant colostomy that accompanies them.

Unfortunately this selection of cases is extremely difficult and many patients even in these days have serious complications at the time they are first admitted to hospital. Usually the course of the disease is most erratic, with exacerbations often widely spaced over a period of many years, so that any positive statements that are made can be immediately controverted by individual case reports which tend to prove the exact opposite. However, in general, the following indications for operation seem to be logical:

1. Manifestations of the disease appearing in a patient less than 50 years of age. There is some evidence from the cases at Massachusetts General that when the disease begins relatively early in life it is more virulent than when it appears later, and very extensive changes in the colon are often seen in the comparatively young patients. They, of course, also have a relatively longer time to live than those in older age groups and therefore will be exposed to complications for a longer period.

2. Recurrent attacks of diverticulitis, despite a low roughage diet and careful attention to bowel habits, with daily use of mineral oil or Metamucil.® This indication must necessarily be elastic and it is hard to define it accurately. Short isolated attacks several years apart do not necessarily indicate operation, but, on the other hand, if a patient has daily difficulty with left lower quadrant tenderness, distress or flatulence, or has repeated episodes of diarrhea, resection should be considered very seriously.

3. The presence of one of the complications of diverticulitis. These include:

(a) *Perforation.* Free perforation into the peritoneal cavity constitutes a surgical emergency and demands operation. This fortunately is relatively rare. More frequent is the chronic type of perforation that often is manifest first by the passage of gas from the urinary tract or, as time goes on, by the expulsion of feces through the urethra. This type of fistula formation also requires operation. Midway in severity between these two is the commonest type of perforation that progresses to a localized abscess in the mesentery. If these abscesses are very small they can be relatively asymptomatic and may resolve spontaneously. As structural changes progress in the sigmoid colon, however, a small abscess may be enough to initiate an attack of complete intestinal obstruction from edema. If the perforation is accompanied by only mild left lower quadrant tenderness and a small palpable mass, it may be expected that it will resolve spontaneously in the absence of intestinal obstruction. This resolution, however, should be rapid with improvement manifested in the course of two or three days. Persistence of symptoms, particularly with any increase in the size of the mass, the presence of obstruction, or of severe deformity by barium enema, indicates operation.

(b) *Obstruction.* Complete intestinal obstruction is rare with diverticulitis. When it does occur it usually is progressive over a period of some weeks or months so that the bowel wall proximal to the obstruction tends to be thickened and edematous rather than greatly dilated. The more acute forms of obstruction usually follow local perforation with abscess formation. In any instance resection is indicated.

(c) *Bleeding.* The source of bleeding in patients with diverticulitis is extremely difficult to discover. It may be due to hemorrhoids associated with the lesion, to the diverticulitis itself, or to concomitant polyps or cancer. By careful inquiry it can be elicited that rectal bleeding is present in about 15 per cent of all patients with diverticulitis. It may be guessed that in perhaps half of this number the bleeding is from the diverticulitis itself. At any rate, unexplained rectal bleeding in the presence of diverticulitis is an indication for resection, since it may be the only indication that the lesion suspected of being diverticulitis is actually cancer. For this reason in any series of resections it will be noted that a rather high proportion of such patients had had bleeding —in this particular series, about 27 per cent. This figure is still surprisingly high but even then it must be recalled that bleeding from cancer of the sigmoid colon is approximately five times as frequent as bleeding from diverticulitis. Rarely, the bleeding from diverticulitis may be massive, necessitating emergency operation for relief.

4. Severe deformity of the sigmoid observed at radiological examination. This indicates major structural changes in the bowel which, although they may improve temporarily, always leave the patient in an unsatisfactory condition. Resection should be carried out before complete obstruction supervenes.

5. Urinary tract symptoms in the presence of diverticulitis. This is a serious sign, particularly in male patients, because it usually indicates a sigmoidovesical fistula is about to form.

6. Doubt as to whether cancer may be present. It may be noted that diverticulitis and cancer are very rarely associated. When they are, diverticulitis is found proximal to the cancer in nearly every case. The usual difficulty arises from the fact that the lesion believed to be diverticulitis actually is cancer.

Since the differential diagnosis usually is made on the basis of the radiological examination, Schatzki's[3] methods of differentiating the two lesions may be mentioned. Schatzki noted that the diagnosis usually is easy but in some cases may be absolutely impossible. With diverticulitis the lesion tends to involve a relatively long segment of bowel with normal mucosa present throughout the segment and with a cone-shaped deformity at either end. Diverticula are usually present, adjacent to the lesion. With cancer the involved area is usually short, with rather square ends and diverticula are usually absent. The last, however, is a very undependable sign, since so many normal people in advanced age groups do have diverticula. In some unusual circumstances, the bowel involved with diverticulitis should improve while that with cancer will progress. As a general rule, however, any lesion in which the differential diagnosis is difficult, preferably should be treated by resection.

TABLE 1.—*Diverticulitis of the sigmoid colon, Massachusetts General Hospital, 1942-1955—Indications for resection.*

	Per Cent of Total
Diverticulitis	30
Complications of diverticulitis:	
Perforation (free 5, abscess 25)	30
Fistula formation	13
Obstruction	19
Bleeding	8

Preoperative diagnosis was cancer in 18 per cent of total.

There are also certain clinical signs that will help to differentiate cancer and diverticulitis. Daily rectal bleeding in which the blood is mixed with the feces, or is mixed with mucus is much more typical of cancer. Patients whose symptoms do not subside rapidly on medical therapy must also be considered suspects. In a few instances it has been possible to obtain positive cytological smears on rectal washings. They are much more likely to be satisfactory if the patient has had colostomy performed previously. Also, if the patient does not improve after colostomy, and rapid resolution of the pelvic mass does not occur, the chances are that the lesion is cancer.

It is apparent that several of the indications for operation may be present in the same patient. Considering only the most important indication in each case, the incidence of each in the present series is shown in Table 1. That they have been continuously broadened is shown by these comparative figures: From 1926 to 1942, resection was done in 10 per cent of all cases in which diverticulitis was diagnosed. During the next decade it was done in 20 per cent of such cases. In the past two years 33 per cent of such patients had resection.

Resection of the colon is much more logical when the disease is limited to one segment of the bowel. In about three-quarters of the cases diverticulitis and diverticulosis will be limited to the sigmoid colon, with very few diverticula found elsewhere. These are the most satisfactory to treat by operation since it can be expected that nearly all of the abnormal bowel can be removed. When the diverticula are numerous and scattered throughout the colon, a somewhat more conservative attitude toward operation seems justified. Usually, however, even in these cases, the major portion of the disease will be localized in the sigmoid colon so that any surgical attack usually is in this area. In the cases in the present series in which resection was performed the lesion was found in the sigmoid or intraperitoneal rectum in 94 per cent, in the right colon in 3 per cent of the cases, and in the transverse or upper descending colon in the final 3 per cent.

When an operation is considered necessary for diverticulitis, the ultimate objective should be to rid the patient of the offending segment of sigmoid colon. This means, for example, that if laparotomy has to be carried out for acute obstruction, resection is planned as the final objective, and transverse colostomy should be carried out in the proper position to allow for a resection at a later date. If the patient is operated on for acute obstruction, a transverse colostomy similarly is indicated. It means that an operation such as drainage of an abscess due to diverticulitis, is not in itself a proper operation; it is not only dangerous in itself, but since it does not divert the fecal current, it makes no preparation for the final cure of the patient. Such operations as cecostomy are not advisable because they do not divert the fecal stream completely and cannot remain effective over the period of time that is often necessary between stages in a patient with diverticulitis.

Assuming then that a curative operation is the final goal, the most important problem is to determine whether it can be carried out as a one-stage procedure, or whether a more complicated series of operations must be done. There are a large number of considerations here that should be noted. Most important of all is the fact that the three-stage operation is considerably safer and is the one that should be employed by surgeons who do not have a great deal of experience in this field. Three-stage procedures are also wise when there has been a perforation of any magnitude. Some tiny perforations in the mesentery of the bowel can be excised perfectly well with the specimen and will add no hazard, but it is not wise to carry out intraperitoneal anastomosis in the presence of free pus whenever it is possible to avoid it. Since a tendency for recurrence of fistula has been observed in some cases after one-stage resections of sigmoidovesical fistulas, a staged operation is safer. If obstruction from diverticulitis is of long standing, the colon is difficult to work with and may not heal well; hence preliminary colostomy is wise.

On the other hand, when a well trained surgeon can obtain normal colon proximal to an area of diverticulitis and normal rectum distal to it, and when he is able to make a technically satisfactory anastomosis, there is no reason why this operation should not be carried out in one stage as it would be for cancer of the colon. The resection is more difficult than it is for cancer because the lumen of the bowel usually is much smaller and the bowel wall a little thicker or more edematous. For this reason, very meticulous anastomosis is necessary. Preferably the inner layer is made of interrupted sutures of #3-0 chromic catgut, and the outer of interrupted Lembert sutures of cotton or silk. Extreme care must be taken to avoid constriction of the lumen because stenosis is very likely to occur if the lumen is contracted by a running suture.

At times the surgeon may plan to carry out a one-stage operation but find that the technical details of the anastomosis have not been as satisfactory as he might wish. For example, there might be a little more bleeding in the pelvis, the anastomosis might be a little too narrow, or there might be some hematoma formation along its margin. Whenever he is not completely pleased with it, he ought to carry out a simultaneous transverse colostomy as a protective measure. A second stage will then be necessary to close the colostomy. This two-stage operation ought to be required relatively infrequently.

If a three-stage operation is to be carried out, the surgeon must plan the colostomy with a great deal of care. If the segment of bowel to be resected is localized very sharply in the sigmoid and there is plenty of available bowel, there is no reason why the colostomy cannot be made in the left upper quadrant. The whole descending colon will probably have to be mobilized, however; and this is usually the case because the sigmoid will be found to be quite shortened from the disease, and it is safer to place the colostomy in the right upper quadrant, allowing more mobility for mobilization of the splenic flexure. Colostomy in the right upper quadrant has the great disadvantage that any inflammation of the biliary tree that might occur while the colostomy is still functioning is very difficult to handle. Since gallstones are somewhat more common in patients with diverticulitis than they are in the normal population, this problem must be considered carefully when colostomy is done. The colostomy itself should not be of the simple loop type, but the ends should be completely divided in order to secure complete diversion of the stream. It is done through a short incision and no attempt is made to explore the sigmoid colon at the time. The sigmoid resection then is planned as a second stage of the operation. This normally is done about three months after the transverse colostomy is established. If, however, cancer is considered to be a possibility, the operation should be done much sooner and can be carried out, of course, as soon as a week after colostomy. The beneficial effects of the transverse colostomy are relatively slow to appear, and, in many instances, the sigmoid operation will still be technically quite difficult three months later. There seems to be little point in waiting beyond that period because it is unlikely that any further resolution will take place thereafter. After the sigmoid resection has been completed, the patient is generally sent home for a short period and then the colostomy is finally closed about a month after the date of the resection. Prior to closure integrity of the bowel is always established by the use of saline solution irrigations, and if there is any question about the width of the anastomosis a barium enema should be given to delineate the left colon. The transverse colostomy then finally is closed by means of open end-to-end anastomosis, the bowel being returned to the peritoneal cavity.

A general summary of the methods of therapy employed at the Massachusetts General Hospital during the period from 1942 to 1955 is shown in Table 2. Medical therapy alone was carried out in 625 cases or 78 per cent of the entire group. Minor operations were done in 25. Resection of the sigmoid colon was carried out in 160 cases, or 20 per cent of the total group. The overall mortality was 2 per cent—approximately 1 per cent in patients with conservative therapy and 3 per cent for those who had resection.

This relatively low mortality rate for resection and anastomosis is one of the outstanding features of the disease at present. It is matched, however, by the relief the patients receive. Recurrence of complaints is very uncommon after adequate resection. If too short a segment of bowel is removed, it is not uncommon for recurrent disease to be manifest either by obstruction or perforation with the formation of a secondary fistula. On the average, removal of about 20 cm. has been found to be necessary to prevent this difficulty. Patients with poor immediate results were relieved entirely when a secondary, more extensive operation was performed.

TABLE 2.—*Treatment of diverticulitis of the sigmoid colon, Massachusetts General Hospital, 1942-1955.*

	Total Cases	Died	Per Cent
No operation	625	6	1
Laparotomy only	12	1	8
Colostomy or cecostomy only	13	4	31
Resection, in 1, 2, or 3 stages	160	5	3
Total	810	16	2

Most of the patients had isolated diverticula remaining after resection of the sigmoid colon, and in many cases x-ray studies made years after operation showed that often additional diverticula had developed. It is quite remarkable that these isolated diverticula very rarely cause any symptoms and, in the few cases where there was difficulty, attention to proper bowel hygiene was sufficient to provide complete relief.

266 Beacon Street, Boston 16.

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The Practicing Physician and Mental Health

WALTER RAPAPORT *M.D.*, Sacramento

• *Neuropsychiatric disabilities are the number one problem in medicine. More specialists are needed in the field of neuropsychiatry. Better psychiatric orientation of nonpsychiatric physicians is needed and there must be infinitely more research into psychiatric problems. We need more adequately equipped and staffed hospitals, both private and public, to care for the problem, and an alerted public as well as a sympathetic, understanding medical profession.*

MENTAL AND EMOTIONAL illnesses and handicaps are the number one health problem of the United States. Over half of all hospital beds are occupied by neuropsychiatric casualties, not including patients who have other disabilities with superimposed neuropsychiatric coloring.

About nine million people in the United States have some form of mental illness—one in every 17 of our population. One of every ten persons will need psychiatric care at some time during his lifetime, and one of every 18 will spend some part of his life in a hospital for the mentally ill. Costs for care and treatment, loss of earnings and loss in federal income tax revenue, exceed two and a half billion dollars annually.

Therefore, it must be apparent that the mental health problem is one that demands the careful interest of the entire population. The cooperation of any segment which can be of assistance in the solution of the problem is obviously vital. Certainly no single group fits more naturally into cooperation of that kind than the practicing physician. In almost every instance the potential mental hospital patient sees his own physician first before contacting a psychiatrist or seeking relief in a mental hospital. Persons of this order who seek advice from a family physician or from practitioners of various nonpsychiatric specialties may be of various classifications—mental and emotional distress, mental retardation, epilepsy and allied disorders, alcoholism and drug addiction.

As the population increases the number of potential neuropsychiatric problems also will increase. In California hospitals for the mentally retarded there are now approximately 60 patients under treatment per 100,000 state population of all ages. If the number on waiting lists were included (approximately 2,300), the rate would be 78.3 per 100,000. Actually, there are several thousand unlisted additional mentally retarded persons in the state and all of them require or could benefit from sound constructive medical advice. Both private and public hospitals in this state are doing a magnificent job in educating and training persons of this type. It would behoove all physicians to orient themselves in what is being done in the field of mental retardation. While the present hospital population of such persons, plus the known waiting lists of the mentally retarded, now numbers about 9,500, it is estimated that by 1960 this figure will have grown to 14,376, and by 1965 to 16,226.

In California admissions to hospitals for the mentally ill are currently around 18,000 per year—a rate of 133 per 100,000 civilian population—and it is anticipated that the rate will be 144 per 100,000 population by 1960, and 156 per 100,000 by 1965. These expected increases are consistent with the long established upward trend. Of course, it is hoped that when and if the Department of Mental Hygiene is able to inaugurate an intensive, expanded research program, it will be possible to favorably influence this established trend.

Since World War II the population in the mental hospitals of California has remained at a ratio of around 300 per 100,000 of general population. The stability of the prevalence rate was maintained despite increases in admissions rates, largely because of the improved treatment program in the hospitals. It is felt that with greater interest from the other medical specialists and general practitioners the rate of admissions could be lowered considerably.

The general public is becoming more aware of the need for early recognition and treatment of mental and emotional illnesses and handicaps and the medical profession should be ready and willing to meet this situation as it has so admirably and competently done in other branches of medicine. Physicians whose work is in the public hospitals are strongly convinced that every physician—be he general practitioner or specialist—should have a basic knowledge of psychiatry, a capacity to recognize early manifestations of mental and emotional illness and handicaps. It is strongly felt that with this fundamental orientation, many of the potential cases

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can be cured by those same general practitioners and specialists, thus avoiding the necessity of ever having to go to a psychiatrist or psychiatric hospital. Also, it is felt that every general hospital should have a psychiatric unit, adequately equipped and staffed to give intensive treatment to persons with early psychiatric problems.

Physicians in private practice confront psychiatric problems almost daily. In the case of the first pregnancy, or even later ones, the emotional and anxiety stresses are frequently of primary consideration. In rheumatic fever, prolonged cardiac disease, hip and spinal diseases and injuries, the neuropsychiatric components may become major factors unless adequately understood and resolved at an early stage of the medical or surgical condition.

What is the program of the California Department of Mental Hygiene in its mission to solve the mental health problem of the state? The approach has many facets. First, ample and adequate housing must be provided for the mentally and emotionally handicapped. Ways must be found to enlist needed personnel. One of the most vital deficiencies in the treatment of mentally ill persons is lack of personnel, not only physicians but all the other necessary disciplines such as psychologists, psychiatric social workers, rehabilitation technicians, nurses and psychiatric technicians.

As to the availability of psychiatrists, there are something over 7,500 in the United States, with over 800 in California. It is estimated that a minimum of 20,000 psychiatrists is needed to meet the problem on the lowest acceptable level. Therefore, more physicians must be trained in the specialty of neuropsychiatry. This is in addition to the absolute necessity of giving adequate orientation in psychiatric areas to all the other practitioners of medicine.

More must be learned about the causes of mental and emotional illnesses and handicaps. This requires intensification of research activities. Psychiatric workers must go into communities and recognize and attempt to resolve the stresses and strains that provoke these devastating neuropsychiatric disabilities. This requires implementation of community service resources on a public level if necessary, at least in the early pump-priming days.

It is recognized that neuropsychiatric disorders are found in all walks of life, in all professions, trades and arts, at all ages, in all colors and creeds, and at all levels of economic and social life.

In the Department of Mental Hygiene, it has been found that by intensifying the care and treatment of patients, a substantial number of those theretofore considered hopeless were improved, some were cured and the average period of necessary hospitalization was shortened.

The Department of Mental Hygiene has an intensive education and teaching program, not only in its hospitals and clinics, but to a greater extent in the two neuropsychiatric institutes associated with the University of California medical schools. Here the Department has trained not only its own personnel, but also large numbers of physicians, nurses, psychologists, etc., who have gone into private practice.

It is strongly felt that to the greatest extent possible all medical and surgical services should be attained on a private practice basis, but until there is a much clearer status of knowledge, a much greater expansion in private facilities, and a sufficiently high economic status to permit all patients to be dealt with by private resources, the government will have to implement the private facilities with public resources.

1320 K Street, Sacramento.

Severe Euthyroid Cardiac Disease

Technique for Treatment with Radioiodine

HENRY L. JAFFE, M.D., Los Angeles

• *It is possible to safely lower the basal metabolism of patients suffering from severe cardiac disease by administering multiple small doses of radioiodine in order to achieve symptomatic relief.*

From the present study, multiple small doses of I^{131} appeared to be as effective as single or multiple large doses of this material and complications such as thyroiditis, temporary thyrotoxicosis and bone marrow depression were almost always avoided. No damage to the parathyroid glands or the recurrent laryngeal nerve was observed. No radiation sickness developed after therapy.

A scintigram of the thyroid gland was useful in determining the size, shape and function of the thyroid gland before and during radioiodine treatment and helped to determine the need for additional treatment. In order to prevent the distressing symptoms of the myxedema state, desiccated thyroid was administered when necessary.

In the series of 278 euthyroid patients with severe cardiac disease who were treated with radioactive iodine, results were excellent in 35 per cent of cases and good in 44 per cent. In 21 per cent there was no improvement.

MORE THAN THREE HUNDRED euthyroid seriously ill patients with heart disease have been treated with radioactive iodine (I^{131}) since February, 1950, in the Radiation Therapy Department of the Cedars of Lebanon Hospital in Los Angeles.

The rationale of this treatment is to produce a state of beneficial relative hypothyroidism by lowering the total metabolism of the body, so that the heart has less work to do. This is a symptomatic treatment for patients incapacitated by heart disease who have a hopeless prognosis and who have a limited life expectancy. The organic cardiac disease is not cured by radioiodine. All other types of cardiac treatment are continued as indicated.

Radioiodine treatment for euthyroid cardiac cripples was pioneered by Blumgart[3] and associates in 1947. They reported their early results in 1952. Wolferth[9] gave account of 28 patients treated with radioiodine for angina pectoris in 1951. Jaffe, Rosenfeld, Pobirs and Stuppy[6, 7] reported their early results in November, 1951, and in 1952 reported upon treatment of a group of 100 patients. Chapman[5] published a report in 1952 and Serber[8] in 1953. Blumgart,[4] in his chairman's address to the Section on Internal Medicine of the American Medical Association in June, 1954, summarized the results of treatment in 1,070 cases at 47 different clinics in the United States. All published reports by these investigators have shown favorable results following the radioiodine treatment for angina pectoris and, with the exception of Serber's all reports were also favorable for the treatment of severe congestive failure.

MULTIPLE SMALL DOSE RADIOIODINE TECHNIQUE

When Blumgart first described the radioiodine treatment for euthyroid patients severely ill with heart disease, he reported that he was giving large doses of radioiodine—as high as 42 millicuries per dose. He also reported thyroiditis as an undesirable side effect of the large-dose treatment. The patients complained of pain in the anterior neck and some patients also showed a temporary state of hyperthyroidism, probably the result of rapid destruction of thyroid tissue and the liberation of abnormal amounts of thyroxin into the blood stream. This temporary hyperthyroidism could prove fatal to a patient with an already severely damaged heart and very little cardiac reserve.

In the present series the author wished to give the smallest dose of radioiodine that would produce the desired clinical effect. Since Blumgart at the time of his original report did not know the minimal effective dose, it was decided to follow a plan of treatment in the present series with multiple small doses of radioiodine in an attempt to accomplish

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the same clinical results without producing the undesirable side effects.

Preliminary Radioiodine Studies

Each patient was completely studied medically by his physician before he was referred for radioiodine treatment. Then, before treatment was begun, an oral tracer dose of five microcuries of I^{131} was administered to the patient in the radiation therapy department and the 24-hour uptake of the thyroid gland was measured. A second dose of 500 microcuries of radioiodine was given orally after the uptake study was completed, and a "thyrogram" (scintigram[1] of the thyroid gland) was made the next day. This gave a diagram of the approximate size, shape and degree of the uptake of the entire gland. In some cases there was a single hyperactive nodule in one lobe; in some an entire lobe was overactive and there was physiological depression of function of the other lobe. (It is interesting to note that the "thyrogram" will show these abnormal findings even though the total 24-hour uptake may be within normal limits.) Radioiodine (I^{131}) averaging six millicuries per dose, was given orally each week until the patient had had a total of 30 millicuries. This was called the "first course" of treatment.

(Before the thyrogram technique was available it was necessary to rely on clinical and uptake studies and other laboratory data for the determination of the effect of the first course of radioiodine. This necessitated waiting two to three months before the post-treatment thyroid uptake test could be done, since there was too much residual radiation activity in the gland to allow doing an uptake study before the end of the two-month interval. Now it is possible to check the size and function of the gland one month after the first course of treatment.) If the patient was not improved after the first course and the thyrogram indicated that the thyroid gland was still functioning normally, a second course of five weekly oral doses of 6 mc. of I^{131} was carried out. A third thyrogram then was made and the patient's progress evaluated. (This now is done one month after the second course.) If necessary, a third course of I^{131} was prescribed, unless the patient already had signs of hypothyroidism.

The Size of the Dose

The size of the dose of radioiodine used varies from clinic to clinic. The author prefers to give 6 mc. oral doses of I^{131} at weekly intervals until the patient has received a total of 30 mc. Other clinics have given as much as 42 mc. in a single dose. The small dose technique is used to avoid the danger of suddenly releasing large amounts of thyroxin from the destroyed gland into the blood stream. This might produce a temporary increase in metabolism which in a patient with severe cardiac disease could be detrimental, even fatal. For the more seriously ill and hospitalized patients, doses of 1 to 2 mc. of radioiodine were given daily or every other day, in order to avoid rapid destruction of the thyroid gland with serious additional strain on the heart. Another undesirable side effect of larger doses of I^{131} is radiation thyroiditis, with an increased metabolic rate. In the patients in the present series treated according to this plan of dosage, the incidence of thyroiditis was low and there was little evidence of temporary thyrotoxicosis subsequent to I^{131} therapy. Bone marrow depression is another possible hazard of massive therapeutic doses of I^{131}, but with smaller doses there appeared to be no such effect.

Apparently the radiobiological time factor in euthyroid cardiac patients treated with I^{131} is independent of the size of the single dose or total dose.[2] Symptomatic relief occurred in a comparable interval after a single dose of 25 mc. or five weekly doses of 6 mc. The same percentage of excellent and good results was obtained with multiple small doses of I^{131} as with the single or multiple large doses totaling 100 mc. reported by other investigators. Therefore, use of the multiple small dose technique for treating selected euthyroid patients incapacitated with cardiac disease was continued. It was noted that about 40 per cent of the patients did well with one course of 30 mc. of radioiodine treatment, 50 per cent required two courses of 30 mc. each, and 10 per cent required three courses of 30 mc. each.

Safeguards

Safeguards against radiation are necessary when any radioactive material is used therapeutically. Single doses as large as 20 to 42 mc. make the patient a focus of considerable beta and gamma ray activity, and safe treatment usually necessitates hospitalization of the patients in order that excreta may be disposed of by trained personnel. Smaller doses do not entail this problem, since I^{131} has a half-life of eight days, and therefore most patients may be treated as out-patients.

Radioiodine should be used only in a laboratory completely equipped for handling radioisotopes and having measurement instruments for calibration of the dosage.

USE OF THYROID EXTRACT AND DEGREE OF HYPOTHYROIDISM DESIRABLE

Following radioiodine treatment it is important to follow the patients carefully in order to detect the earliest symptoms of hypothyroidism. The author has prescribed thyroid extract where necessary to avoid the severe symptoms of myxedema.

This should be done even before laboratory tests have definitely indicated myxedema levels. If frank myxedema is permitted to develop, the patient may have so many complaints referable to the myxedema state that the relief of the symptoms of cardiac disease may seem less than a boon to him.

It is the opinion of the author, and is the consensus of most investigators, that no greater degree of hypothyroidism should be permitted than adequate clinical relief of cardiac symptoms requires. Wolferth[9] and Serber[8] have reported upon use of conservative radioiodine dosage. Serber has controlled myxedema when it developed by giving 15 to 30 mg. of thyroid extract and noted no interference with the beneficial effects of radioiodine therapy. Chapman[5] said that myxedema should not be permitted to develop and that patients should be kept at the basal metabolic rate of –20 to –25 per cent, that plasma-bound iodine should be kept at levels of 2 to 3 gamma per cent, and that radioiodine uptake should be maintained at 10 to 20 per cent in 48 hours. Blumgart[3] and associates, on the other hand, in their early reports said they had permitted pronounced hypothyroidism, and in some instances complete myxedema, to develop in order to be sure that all thyroid tissue was affected before they administered 6 to 12 mg. of desiccated thyroid daily. They adjusted the dosage of desiccated thyroid to maintain the lowest metabolic level associated with the maximum relief of cardiac disease and the minimum discomfort from myxedema. They found in some cases that treating with sufficient thyroid extract to obviate symptoms of myxedema resulted in very little cardiac improvement over the pretreatment status. They then stated that in most of the patients they administered 6 to 30 mg. of thyroid extract to maintain basal metabolic levels of –20 to –25 per cent. In the present series when patients showed symptoms of hypothyroidism, doses of 12.5 to 30 mg. of thyroid extract daily were administered. Great care was taken to avoid development of the disagreeable clinical picture of severe hypothyroidism or myxedema. In some patients thyroid tissue eventually regenerates and further radioiodine treatment is necessary. This phenomenon was confirmed by follow-up studies of I^{131} uptake and thyrograms made at three-month intervals.

EVALUATION OF RESULTS

The many and diverse clinical problems present in patients with severe cardiac disease affect the evaluation of beneficial results obtained from radioiodine treatment. A result may be short of complete symptomatic relief yet be considered excellent or worth while. A patient with angina pectoris decubitus who is relieved of the need to take nitroglycerin repeatedly throughout the day and night receives real help, even though walking without pain is still impossible. A patient who may be comfortable at rest but who cannot work because of repeated attacks of angina pectoris, is greatly benefited if he is improved sufficiently to return to work. A patient with congestive failure and ascites gains much advantage if radioiodine treatment ends the necessity of repeated paracentesis and so well controls the condition that sodium restriction or the use of mercurial diuretics is sufficient.

When it is known, in individual cases, what relief has been obtained from other forms of medical treatment, and with the clinical problems of each patient known and recorded, a more accurate evaluation of the effect of radioiodine treatment is possible. The improvement in comfort, ability to care for self or to work, reduction in required drugs and decrease in dangerous attacks of acute pulmonary edema must be weighed against the disadvantages of relative hypothyroidism.

Definitions

For purposes of evaluation in the present series, Blumgart's classification was used in order to avoid confusion of terms.

1. *Excellent (pronounced improvement):* Greatly improved over pretreatment status, with either no recurrence of symptoms or a pronounced decrease in the frequency and severity of angina pectoris or congestive failure, despite activity greater than that possible before treatment.

2. *Good or worthwhile:* Definite decrease in frequency and severity of attacks on same activity as before treatment, or ability to do considerably more with no increase in angina pectoris or congestive failure.

3. *No worthwhile improvement.*

The patients in the series were treated with radioiodine only when other forms of medical treatment did not control their symptoms. Included were patients with severe angina pectoris, with congestive failure and a combination of both.

Results

In the series of 278 euthyroid patients with severe cardiac disease, the following results were obtained: Excellent in 35 per cent, good in 44 per cent, and no improvement in 21 per cent. Of 127 patients with angina pectoris, 34 per cent had excellent and 46 per cent good results. Only 20 per cent showed no improvement. Eighty-six patients had congestive failure, and results in that group were: Excellent, 37 per cent; good, 40 per cent; no improvement, 23 per cent. For a group of 65 patients with both angina pectoris and congestive failure results were excellent in 34 per cent of cases and good in 45 per cent. In 21 per cent there was no improvement.

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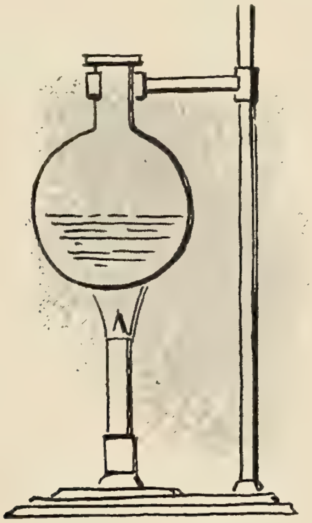

Hydrocortisone Therapy of Periarticular Pain

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• *Certain distinct disease entities producing pain about the joints were treated by injection of hydrocortisone solution at the points of greatest tenderness. Results were superior to those obtained by methods available prior to the advent of hydrocortisone.*

A COMMON COMPLAINT presented by patients is that of periarticular pain, and perhaps in some cases the physician is in greater distress than the patient when he hears this symptom cited.

Some physicians dislike treating patients with that condition, for in the past results have been satisfactory to no one. The complaints are often vague and perhaps accompanied by pain of referred type, thus often directing the attention of the examining physician away from the actual site of disease. The pathological changes of the underlying disease process are often clouded in the minds of physicians.

A patient may complain of shoulder pain which radiates down the arm and perhaps into the supraspinatous area. There may be limitation of motion with increase of pain on motion. The examining physician may thereupon recall the many arguments that have continued over the years as to the causation of shoulder pain. Back as far as 1896 Duplay said that all shoulder conditions of this kind were due to subacromial bursitis, and he labeled the condition scapulo-humeral periarthritis. This term adhered like a leech despite the work of many investigators who, since that time, have demonstrated such clinical conditions as calcareous tendinitis, rupture of the supraspinatous tendon, tenosynovitis of the long head of the biceps muscle and adhesive tenosynovitis, as some of the causes of shoulder pain.

Another common medical label attached to the painful shoulder is *subdeltoid* or *subacromial* bursitis, a term which conveys a false pathological concept of one of the commonest causes of shoulder pain—namely, calcareous tendinitis of the musculotendinous cuff. In such cases the bursa is rarely, if ever, primarily involved; instead, bursal reactions are usually secondary to an irritative process originating in tissues adjacent to the bursa. Since calcification may occur in any portion of the musculotendinous cuff, designating this condition by the currently widely used term *calcification of the supraspinatous tendon* often leads to inaccurate pathological description. According to DePalma, calcareous lesions in the musculotendinous cuff are usually, but not always, in the supraspinatous region of the cuff.

What relation does this disease bear to occupation? Numerous investigators have said that sudden trauma may cause injury to tendon fibers, that hemorrhage into the area may occur and that, in the course of repair, calcium may be laid down. A period of nine to 12 months will usually elapse, it is reported, between the date of injury and the time calcium may be first noted by x-ray studies. Frequently such calcified deposits within the musculotendinous cuff are noted in routine studies in persons who have no complaint referable to the area. However, an incident in the occupation of such a person—heavy lifting perhaps, or a fall or a direct blow—may be followed by shoulder pain, which may result from secondary involvement of the previously abnormal tendon and cuff tissue. A patient so affected cares little about the physician's knowledge of the anatomy and pathologic changes of the musculocutaneous cuff. He wishes only to be relieved of suffering, and a physician who cannot do so is, in his opinion, a very poor one.

Once a diagnosis of calcareous tendinitis within the musculotendinous cuff is made and pain in the shoulder is attributed to it, what can be done to relieve the pain? For many years x-ray treatment was considered the method of choice. In acute cases x-ray often brought about a very satisfactory result, although the relief from pain was sometimes slow and treatment was prolonged. In the more chronic forms of this disease, results were certainly not uniformly good.

In recent years hydrocortisone has come into use for treatment of this disease. Over the past several years the author has administered this hormonal preparation in a number of conditions, some of which will be discussed specifically and others in general.

Hydrocortisone was used in the treatment of 48 patients with tendinitis of the musculocutaneous cuff. The oldest was 89 years of age and the youngest 17. Thirty-one had involvement of the right shoulder, ten of the left shoulder and seven of both shoulders. Treatment was carried out as an office procedure

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with the patient sitting and with the involved extremity hanging to the side. Generally the point of acute tenderness was found over the lateral aspect of the head of the humerus with the extremity in a position of external rotation. Following surgical preparation of the shoulder, procaine solution was infiltrated and 50 to 75 mg. of hydrocortisone then was injected at multiple sites within the cuff in order to put the preparation into and around the area of tenderness. Usually within a few minutes the patient is free of all pain and there is no restriction of motion. Pain, sometimes more severe than before, returns in about two hours in most cases and then usually abates gradually over the following 36 to 48 hours. The patient then is completely free of pain and, if the results are good, will remain so. Good results were obtained in 36 of the 48 patients, fair results in nine and poor results in three. In 12 cases, a second injection of hydrocortisone was administered and in a few a third injection was carried out before the patient became asymptomatic. In classifying results the term *good* was applied when there was complete relief of pain following injection, and then continuing freedom from pain; *fair* denoted relief from pain for periods of three to six months but need for subsequent injections; and *poor* meant little if any relief from pain and continuing pain even after repeated injections. An incidental observation was that often the male patients complained of severe pain with the injection. Many became pale and perspired profusely and some became dizzy. Very few of the women complained of pain upon injection and none of them had any of the other symptoms that were noted in men.

Twenty-one of the patients treated with hydrocortisone injection had epicondylitis. The oldest in this group was 59 years of age and the youngest 25 years. Sixteen were men and five women. In 14 cases the disease involved the right elbow, in six the left elbow, and in one both elbows. The lateral epicondyle was the site of disease in 17 cases and the medial epicondyle in three cases. In light of the exposed position of the lateral and the protected position of the medial epicondyle, the relative incidence suggests a relationship between this condition and trauma. Treatment consisted of infiltration with procaine followed by infiltration of the entire area of the epicondyle and a portion of the common flexor or extensor tendon attachment to the epicondyle with 25 to 50 mg. of hydrocortisone. In 12 of the 21 cases results were good, in eight fair and in one poor. In 12 cases one or more reinjections were required.

Six cases of DeQuervain's disease were treated by hydrocortisone injection. In each case the result of Finkelstein's test was positive.* After the positive result was obtained, hydrocortisone was injected into the common tendon sheath. Since in DeQuervain's disease it is impossible to inject more than a small amount of fluid, use of a solution containing 50 mg. of cortisone per cc., rather than the usual 25 mg. per cc., is advisable.

The age range in the group with DeQuervain's disease was from 24 years to 60 years. There were three men and three women. In three cases the right arm was involved and in three the left. In five cases good results were obtained and in one only fair results, one reinjection being required. One of the patients was a woman who, at the request of an insurance carrier, was examined for consideration of permanent disability rating. She had had various kinds of treatment during the preceding year, and during that time she had a rating of temporary disability. Within 48 hours after hydrocortisone injection she was completely free of pain and there was no recurrence in a period of nine months of observation after injection. The patient returned to work within a week following injection and remained free of any disability.

A common condition in industrial practice is olecranon bursitis owing to trauma to the posterior portion of an elbow. Such cases were treated by aspiration of the hemorrhagic fluid from within the olecranon bursa and injection of 50 mg. of hydrocortisone into the bursa. Recovery was more rapid than is usual in this type of injury, pain was less, and thickening of the bursal sac did not occur. In two cases there were fibrous projections arising from the base of the bursa, probably due to previous attacks of olecranon bursitis. In both of these cases pressure on the elbow still was painful after treatment and surgical excision was necessary later.

A clinical entity that has become either more common or more often mentioned in the past several years is whiplash injury, a syndrome usually caused by automobile collisions. Characteristic is generalized cervical pain which slowly subsides, often leaving residual pain in the suboccipital area, usually bilateral. This pain may be intermittent, but when present is often acute. It may be accompanied by pain that radiates over each side of the head and that is often described by the patient as headache.

The author treated residual areas of suboccipital pain in such cases by injection with hydrocortisone at the point of acute tenderness. This point is found best by having the patient lie face downward on the examining table with the neck in flexion. Pressure with a finger over each suboccipital area approximately one inch to the side of the midline will elicit a point described as acutely tender by the patient. This point corresponds anatomically with the location of the greater occipital nerve as it lies anterior to the semispinalis capitis muscle. After local infiltration with procaine, 1 to 1.5 cc. of hydrocortisone (25 mg. per cc.) was injected. Usually pain abated for approximately two hours, returned for about two days, then stopped and did not recur. Results were uniformly good although reinjection was required in a few instances.

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*The patient's thumb is placed in the palm of his hand. The examiner grasps the patient's fingers and forces the wrist into ulnar deviation. This produces severe pain at the radial styloid on the involved side. Then a small amount of procaine solution is injected into the sheath, common to the abductor pollicis longus and extensor pollicis brevis in the groove on the styloid process of the radius. Again the patient's thumb is placed in the palm of his hand, the examiner grasping the patient's fingers and forcing the wrist into ulnar deviation. If no pain is felt by the patient following injection, the result is positive.

In the general series of cases in which hydrocortisone injections were used there were many which were difficult to classify—such conditions as tendinitis of various digits, biceps tendinitis, bursitis around the various joints, calcification adjacent to the hip joints, strain of the collateral ligaments of the knee joint and acute muscular strain with point tenderness, to mention a few. The conclusion was reached that in acute conditions that follow trauma considerable benefit may often be brought about by infiltration of the involved area with hydrocortisone solution.

There are, of course, certain contraindications to such therapy, particularly where injection requires invasion of infected tissue or where the disease process is multiple and generalized, but such contraindications are few in number.

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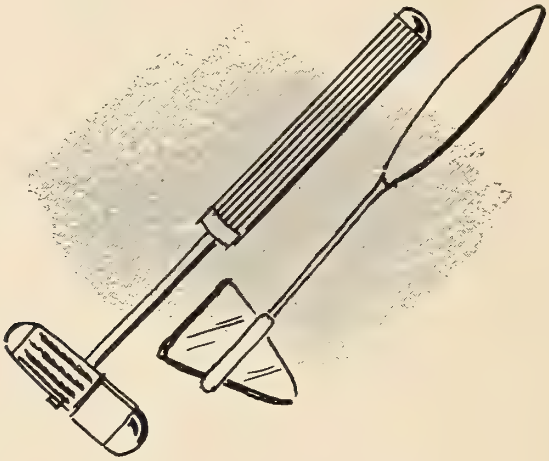

Viral and Rickettsial Diseases

Laboratory Methods in Diagnosis

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• *Factors contributing to the development of viral diagnostic services have been: (1) technical advances, and (2) increasing demand for services due to relative and actual increases in the prevalence of these illnesses. This increase has been both relative, as in the case of diphtheria, etc., and actual as in the cases of poliomyelitis. Technical advances have been numerous and frequent. One of the most spectacular has been the development of methods for the culture of living cells for the propagation of viruses. Emphasis must be placed on the fact that the diagnosis of many viral diseases requires close teamwork between local, state, federal, and privately supported agencies. Laboratory procedures remain expensive but are frequently the only way to determine the exact nature of a particular illness. The available or practical procedures are emphasized in this discussion.*

THE DEVELOPMENT of laboratory procedures for the diagnosis of viral and rickettsial diseases has followed the general pattern established for other infectious diseases. At the beginning of this century the main laboratory diagnostic services available were the detection of rabies in dogs, the complement-fixation test for syphilis and the cultural methods for the diagnosis of diphtheria and tuberculosis. This state of affairs prevailed until after World War I. The large state-supported "institutes" of Europe were engaged primarily in the manufacture of vaccines and therapeutic sera and their excursions into laboratory diagnostic "service" were made chiefly to investigate veterinary or human diseases of economic importance or of other national concern. No "service" as we think of it today was available.

Many of the immediately practical procedures were performed by practicing physicians, but with the increasing complexity of these procedures that became impossible. Procedures which were most useful and not prohibitively expensive for the individual patient were performed in private hospital laboratories and in private clinical laboratories. There remained, however, a large group of tests so expensive that they could be made generally available only through federal and state agencies, and those tests as well as the more usual procedures were assumed gradually by city, county, state and federal laboratories in this country.

With the exception of rabies detection, viral laboratory procedures were limited to the recovery and identification of an infectious agent in suitable experimental animals. About 25 years ago the serum neutralization test (which had been proposed and first used experimentally by Landsteiner about 15 years earlier) was developed for yellow fever. Subsequently this technique proved applicable to a variety of viral diseases. However, the requirement of 50 or so mice to carry out a test of this type for one virus and with but a single pair of blood specimens made development of *in vitro* techniques extremely desirable. Thus the application of complement-fixation was broadened with the development of satisfactory viral and rickettsial complement-fixation antigens.

In California, viral diagnostic services were first provided in connection with investigative programs of various university and private laboratories; the Hooper Foundation of the University of California was particularly active in this field. In the late 1930's a laboratory facility was established in Berkeley for the investigation of influenza and related epidemic respiratory diseases. This laboratory, which initially was privately supported for field research purposes, developed into a state-wide, publicly supported diagnostic service.

The factors contributing to the development of viral diagnostic services have been: Technical advances, acceptance of responsibility for provision of such service by public agencies, and increasing demand for services due to increased importance of viral diseases. This increase has been both relative, because of declining prevalence of such diseases as diphtheria, tuberculosis and bacterial pneumonia, and actual, as in the case of poliomyelitis.

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Local service needs should be met in so far as possible, by local laboratory facilities, but local service must of necessity be limited in scope because of the burden of overhead necessary for the maintenance of comprehensive service and research facilities essential for a complete viral and rickettsial diagnostic program.

METHODS

The methods developed for the specific diagnosis of other infectious diseases are almost all adaptable in one way or another to the diagnosis of viral and rickettsial infections. However, three limiting factors—the small mass of viruses and of rickettsiae, the lack of detectable morphological differences, and the requirement for a living host cell for growth and manifestation of pathogenicity—have imposed formidable practical limitations. In the conventional agglutination test, the Widal for example, the typhoid bacilli comprise the great proportion of the agglutinated mass, the visible endpoint, antibody contributing only a small amount; and, in the precipitin and flocculation tests, the antigens although of small size are readily available in large quantities of concentrated material. On the other hand, although specific aggregation or agglutination of the rickettsiae and larger viruses by antibody is feasible and is actually employed on occasion in investigative studies, the preparation of concentrated suspensions of the infectious agents is so difficult as to preclude practical diagnostic use. The necessity for living systems has been partially overcome, first through the use of small, relatively inexpensive animals (mice, and more recently baby mice), second, through the use of embryonated eggs, and third and most recently through improved methods of tissue culture. The available techniques and the applications are listed in Table 1.

The complement-fixation technique is an old and familiar procedure and its employment in viral and rickettsial diagnosis is not materially different from its use in syphilis. Unlike the syphilis tests, however, the viral and rickettsial antigens are *specific.* There are some instances of a general cross-reactivity, such as between Rocky Mountain spotted fever and rickettsialpox, but these are not troublesome. Rather, these cross-reactions can be useful, as for example in the use of the soluble typhus antigen for screening purposes rather than the more expensive but specific washed rickettsial antigens, to distinguish classical and murine typhus antibodies. Modern development of dried complement,

TABLE 1.—*Summary of diagnostic procedures for viral and rickettsial diseases*

	CLASS OF DISEASE				
Type of Examination	Respiratory	Central Nervous System	Cutaneous Systemic	Eye	Other
Complement-fixation	Q fever Psittacosis Influenza	Encephalitis Mumps LCM Herpes simplex Colorado tick fever	Typhus Spotted fever Herpes simplex Rickettsialpox	Herpes simplex	LGV Mumps
Hemagglutination inhibition	Influenza	Mumps		Newcastle disease	
Neutralization	Influenza*	Encephalitis LCM Poliomyelitis	Variola vaccinia Herpes		Yellow fever
Nonspecific agglutination	Primary atypical pneumonia		Typhus Spotted fever Scrub typhus		Infectious mononucleosis
Direct microscopic		Rabies	Variola	Trachoma Inclusion blenorrhea	
Cultural	Influenza Epidemic pleurodynia and herpangina	Encephalitis Mumps LCM Colorado tick fever Herpes simplex Rabies Poliomyelitis Coxsackie B	Variola Typhus Spotted fever Rickettsialpox Scrub typhus		Mumps
No satisfactory test	ARD (common cold)		Varicella Herpes zoster Measles Rubella		Viral enteritis Hepatitis

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*Available but not generally used because of practical limitations.

Key to Abbreviations: ARD=Acute respiratory disease; LGV=Lymphogranuloma venereal; LCM=Lymphocytic choriomeningitis.

uniform and high titer sheep-cell hemolysin, and noninfectious, reliable antigens has made viral and rickettsial complement-fixation techniques adaptable to local laboratory use.

Fortuitously, the complement-fixation is proving especially useful in those diseases caused by a number of closely related agents. For example, the large number of antigenically different strains of influenza A and A′ viruses require multiple antigens for neutralization and hemagglutination inhibition tests, but a common complement-fixation antigen reacts with antibodies produced by any of the strains. Furthermore, high levels of complement-fixation antibody appear to be closely associated with the active phase of infection with a particular agent, do not persist long after recovery, and are not ordinarily seen in high titer following vaccination.

Hemagglutination inhibition, based on the property of specific immune serum to prevent clumping of erythrocytes by various viruses, has become a very popular procedure particularly in the epidemiologic investigation of influenza. This technique has also been found useful in the diagnosis of mumps and certain diseases of veterinary importance. The technique is simple and reproducible and can be carried out with a minimum of equipment. The readiness with which this test detects minor antigenic variation limits its utility and its scope (Table 1). Hemagglutination inhibition techniques have been proposed for equine and St. Louis encephalitis, but at present they are of such technical complexity that they are not practical.

Neutralization of viruses by the corresponding specific antibodies has the prestige of seniority over the other techniques. The use of animals has been traditional as a device to detect residual virus in mixtures of virus and serum, but animal inoculation has become more general with the adoption of chick embryo, infantile animals and tissue cultures as testing tools. Development of the tissue culture technique has been meteoric after a long lag period, and today practical tissue culture procedures are almost within the scope of the routine testing laboratory.

The nonspecific tests, best exemplified by the Weil-Felix proteus agglutination in the diagnosis of typhus fever, have had long usefulness. But wherever the specific antigen is feasible and reasonable in cost, its use is recommended over the nonspecific antigen. Academically this is highly desirable but practically is not always the best procedure. For example, in early-treated cases of typhus and Rocky Mountain spotted fever the complement-fixation reactivity of the early convalescent phase serum may be inconclusively low or absent, whereas the proteus OX19 or OX2 agglutination to high titer by the same serum may permit a diagnosis. Infectious mononucleosis is included in the table on the assumption that it is caused by a virus, although this has not been proved. The sheep-cell agglutination in this instance is analogous, perhaps, to the Weil-Felix test before the etiologic agent of typhus fever had been defined. Agglutination of human erythrocytes at cold temperatures by early convalescent phase serum has been extremely useful in the definition of certain primary atypical pneumonias. This phenomenon is an example of a nonspecific autoantibody reaction.

Direct microscopic methods generally have as their purpose the demonstration of characteristic inclusion bodies and viral particles in cells or exudate obtained directly from the lesions of a disease. Diseases that lend themselves to direct microscopic methods are rabies, variola, herpes simplex, trachoma and inclusion blenorrhea. Varicella-herpes zoster infections are not practically diagnosed thus, although they may enter the differential diagnostic possibilities of certain of the other diseases mentioned and may be diagnosed by exclusion. Inclusion body detection has been suggested as a diagnostic procedure for examination of sputum and material washed from the throat in certain respiratory illnesses, but so far has been of no practical value. A drawback to this method is obvious in rabies diagnosis in dogs—namely that inclusions resembling the Negri body may be observed in animals dead of other diseases, and that absence of inclusions in the material examined does not absolutely deny the diagnosis of rabies infection.

Cultural procedures, as has been mentioned, entail the transmission of the infectious agent to a susceptible host system: An intact animal, avian embryo or tissue culture. In those instances in which the changes induced in the experimental system are specific—rabies, for example—immediate identification of the agent may be possible as soon as disease appears. However, in most viral infections, whether of animals or cells in culture, the changes are nonspecific and it is necessary to identify the specific agent by neutralization, complement-fixation or protection tests with known specific antisera. Even in rabies this procedure is occasionally necessary. In spite of these limitations, culture of the infectious agent is very useful in the laboratory diagnosis of poliomyelitis (tissue culture), the Coxsackie infections (infant mice), smallpox (chick embryo) and herpes simplex (chick embryo and infant mice), as well as a sound approach to the ultimate discovery of practical methods for the diagnosis of other diseases.

HANDLING THE SPECIMENS

Identification. This simple and obvious necessity is overlooked frequently; a satisfactory specimen may arrive in good condition at the laboratory—but without the patient's name or the physician's name or either. A brief summary of the clinical history, including the date of onset and date of bleeding or other sampling is likewise of great assistance in interpreting laboratory test results.

Blood Specimens for Serologic Tests. Glassware for blood specimens should be clean, dry, and preferably sterile. Care should be exercised to remove all of the cleaning agent because most of them interfere with serologic tests and are also toxic to viruses, to other microorganisms, to laboratory animals and to tissue cultures. For example, chromate ion (in the commonly used chromic acid cleaning solution) is extremely adherent to glass and will poison viruses stored in such glass. Sodium lauryl sulfate, on the other hand, can be rinsed out of glassware readily and therefore is better for cleaning tissue culture glass. Sterility of the specimen, always desirable, is essential for neutralization studies and for most animal work. Blood bottles or tubes should be tightly stoppered, preferably with rubber stoppers. In the case of air-mailed tubes it is wise to tape the stoppers securely to prevent their popping out at low air pressure. Postal regulations call for a double container, an inner one of metal, an outer one of fiber or cardboard, to prevent damage to other mail and hazard to postal employees. Blood specimens for serologic tests should be kept cool or refrigerated, but not frozen. Frozen and thawed blood cannot be tested by most techniques; frozen and thawed serum, however, can be examined serologically.

Biopsy and Necropsy Specimens. Blood, tissue for biopsy, cerebrospinal fluid, throat washings, sputum, vesicle fluid or crusts should without exception be preserved by rapid freezing, and shipped in dry ice. Some viruses are relatively stable in water or in 50 per cent glycerine (for example, poliomyelitis, Coxsackie, herpes), but many are extremely labile. Smallpox virus is uniquely resistant to drying; therefore dried crusts or pox fluid may be shipped long distances or stored for relatively long periods over drying agents without loss of virus. On the other hand, poliomyelitis virus, which is relatively stable in water, is rapidly destroyed by drying. When dry ice is not available it is best to ship in wet ice according to the procedure used to transport dog heads. It is poor practice to store such materials in the home or office freezer or freezing compartment because of the alternate slow freezing and slow thawing which occurs during such storage.

Surgical aseptic technique should be the guiding principle in obtaining specimens at necropsy for purposes of viral or rickettsial isolation. This is likewise a prudent precaution for protection of personnel and the environment against possible dangerous and insidious contamination. Such specimens should be preserved and transported with precautions outlined above.

Laboratories commissioned to provide viral diagnostic services for physicians in California are:

1. The Virus Laboratory, California State Department of Public Health, Berkeley, California (Statewide service).
2. The Virus Diagnostic Laboratory, United States Public Health Service, Montgomery, Alabama (Specimens should be submitted through the State Virus Laboratory).
3. The Virus Laboratory, Los Angeles City Health Department, Los Angeles (for physicians in the city of Los Angeles including Los Angeles County Hospital).
4. For Military and V. A. installations, the Sixth Army Area Laboratory, Fort Baker, and the Department of Virus and Rickettsial Diseases, Army Medical Service Graduate School, Washington 12, D. C.
5. An increasing number of city and county laboratories are providing serological tests as commercial antigens become available. In areas other than those mentioned, the physician is advised to consult his local health officer.

Other qualified laboratories which might be interested in unusual infections from an investigative point of view are:

1. The University of California Medical Center, San Francisco
    - (a) The Hooper Foundation (particularly psittacosis and ornithosis).
    - (b) The Proctor Foundation (ophthalmic infections).
    - (c) The Department of Pediatrics (smallpox).
2. The University of California Medical Center, Los Angeles
    - (a) The Division of Virology, Department of Infectious Diseases and the Central Hospital Laboratories.
    - (b) The Department of Pediatrics (Respiratory Infections in the newborn).
3. The College of Medical Evangelists
   Department of Pediatrics
   Los Angeles County Hospital.

DISCUSSION

Of the procedures listed, the *in vitro* serological procedures are by far the most economical; the complement-fixation test is particularly useful and is the most widely used test for those diseases for which satisfactory complement-fixation antigens are available and in which complement-fixation antibodies appear. A particular advantage is that whereas neutralizing and hemagglutination inhibiting antibodies may persist for months and years following immunization or infection, complement-fixation antibodies tend to fall to appreciably lower levels in weeks or months following most diseases.

Practically, serial specimens, one collected as early in the course of the infection as possible and one or more collected during convalescence, are always desirable. However, high levels of complement-fixation antibody can often be regarded as presumptive evidence of recent infection even though an increase cannot be demonstrated. The problem of the early or "base line" serum is a very real one because obviously the physician may not suspect a viral infection until late in the course of the disease.

The best results in virus diagnostic work are obtained when there is close collaboration between the physician and the laboratory. One of the most frustrating experiences in virus diagnostic work is to receive a specimen with a "blanket" request for "virus diagnostic studies"; obviously, even in tax-supported institutions one cannot set up a battery of tests like "febrile agglutinins" for all of the viral infections when the tests for a single agent may cost fifty to a hundred dollars. If the physician cannot make a specific request himself, or cannot telephone the laboratory, the next best alternative is to send a brief clinical abstract of the case so that the director of the laboratory may select the appropriate tests.

Emphasis herein on the limitations of virus diagnostic tests will not, it is to be hoped, be completely discouraging. The situation is infinitely more optimistic now than it was 15 years ago and we can look forward to the availability of more and more useful procedures.

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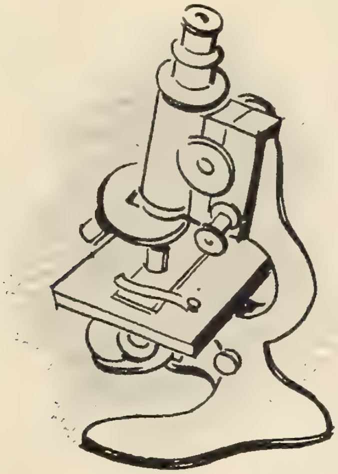

Epiphyseal Stimulation in the Lower Extremities

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• *Epiphyseal stimulation to correct disparity in the length of lower extremities was done in 12 children. The total number of procedures was 15. In 11 of the 15 instances the operation was beneficial. Ivory pegs were used in some cases, brass screws in others and multiple drill holes in still others. There seemed to be no difference between them in the amount of stimulation brought about.*

Stimulation persisted for from six to ten months after operation.

Complications that may occur are varus or valgus deformities, delay in growth, complete fusion, or infection. To prevent varus or valgus deformity, both medial and lateral sides may be stimulated simultaneously. Great care must be taken to place the screws no closer than one-fourth inch to the epiphyseal plate to avoid trauma which may delay rather than stimulate growth. Late infection may be obviated by the use of absorbable materials.

The increase brought about by stimulation procedures is probably attributable to hyperemia following subperiosteal stripping.

EPIPHYSEAL STIMULATION was carried out in 12 patients at the Orthopaedic Hospital, Los Angeles. There was a total of 15 procedures, three patients having had two stimulations one year apart. Eight of the patients had congenital shortening of a lower extremity and four had residual effect of post-poliomyelitis. The youngest patient was 18 months of age, the oldest eight years, and the average was six years.

The procedure used was that described by Pease,[3] in which the distal metaphysis of the femur or the proximal metaphysis of the tibia was exposed and an ivory peg placed across the bone. However, in most cases in the present series brass screws were used rather than ivory pegs, brass screws in eight instances, ivory pegs in five; and drill-hole osteotomy was done twice. The stimulation was applied to the distal femoral epiphysis in seven instances, to the proximal tibial three times and to the distal femoral and proximal tibial five times.

To evaluate the results of the stimulation procedure, it was first necessary to determine whether or not the disparities in leg length in such cases are static or progressive. To this end 32 cases of disparity owing to poliomyelitis and 22 cases of congenital shortness of a leg were reviewed. Periodic teleoroentgenographic studies for an average period of six years were available. In all cases the disparity increased progressively. Therefore, in evaluating results in the cases in which epiphyseal stimulation procedures were carried out, consideration was given to the progressive increase in disparity that might otherwise have been expected. In 11 instances the procedure was beneficial. The maximum increment due to stimulation was five-eighths of an inch; the minimum one-eighth of an inch; the average one-fourth of an inch. In four cases growth was delayed by the procedure, and in one of those cases a fusion of the medial half of the distal femoral epiphyseal plate developed. The distance that the screws or pegs were placed from the epiphyseal plate varied from one-sixteenth inch to one and one-fourth inch. In the four cases in which a delay in growth occurred, the pegs were initially placed closer than one-fourth of an inch from the epiphyseal line.

The maximum period of time that stimulation persisted was from six to ten months. After that, teleoroentgenographic examination at intervals of three months revealed no further stimulation.

No difference between ivory pegs and brass screws was noted. Stimulation also resulted in the two cases in which only drill holes were used for stimulation. Stimulation of one epiphysis often affected the growth of both femur and tibia. There was no difference in results as between cases in which the femur was stimulated, those in which the tibia was the site chosen and those in which both sites were treated simultaneously. In the three cases in which a second procedure was carried out one year after the first, the amount of stimulation was equal to that of the initial procedure.

Complications that may occur are varus and valgus deformities, delay in growth, or possible complete fusion. These untoward results may be caused by periosteal tearing across the epiphyseal plate, or by piercing of the epiphyseal plate by pegs or screws. In cases in which the operation was

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From the Orthopaedic Hospital, Los Angeles 7.

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TABLE 1.—*Data on epiphyseal stimulation in cases of congenital disparity in length of legs*

Case No.	Sex	Age at Surgery	Material Used	Site	Surgical Approach	Distance from Epiphyseal Line	Stimulation	Complication
1.	M	8	2 brass screws	Distal femur	Medial	½″	¼″	.....
2.	M	8	4 brass screws	Distal femur and prox. tibia.	Medial	¼″	¼″	Infection 2 years from time of surgery
3.	M	2	Multiple drill holes	Distal femur and prox. tibia	Medial	¼″	⅛″	.....
4.	M	3	4 ivory pegs	Distal femur and prox. tibia.	Medial and lateral	¼″	⅜″	20° flex. cont. of knee
5.	M	3½	1 brass screw	Distal femur	Medial	½″	⅛″	2° valgus
6. (Second Procedure)	M	4½	Removal screw. Insertion 1 ivory peg	Distal femur	Medial	½″	⅛″	5° valgus
7.	M	2	Multiple drill holes	Distal femur and prox. tibia.	Medial	½″	½″	2° valgus
8.	F	6	2 brass screws	Distal femur and prox. tibia.	Medial	½″	¼″	8° valgus
9.	M	7	2 brass screws	Distal femur	Medial and lateral	1/16″	......	Fusion, medial aspect of epiphyseal line

TABLE 2.—*Data on epiphyseal stimulation in cases of postpoliomyelitis disparity in length of legs*

Case No.	Sex	Age at Onset of Polio	Age at Surgery	Material Used	Site	Surgical Approach	Distance from Epiphyseal Line	Stimulation	Complication
10.	M	4 mo.	8	Brass screw	Distal femur	Medial	1″	⅛″	.....
11. (Second Procedure)	M	4 mo.	9	2 ivory pegs; screw removed	Distal femur	Medial	1¼″	⅛″	Valgus 3°
12.	F	3 yr.	7	2 ivory pegs	Prox. tibia	Medial	½″	⅝″	Valgus 3°
13.	M	2 yr.	6	1 ivory peg	Distal femur	Medial	1/16″	⅛″ delay	.....
14. (Second Procedure)	M	2 yr.	7	1 ivory peg	Distal femur	Lateral	1/16″	⅜″ delay	.....
15.	F	4 yr.	8	2 brass screws	Prox. tibia	Medial	1/16″	⅛″ delay	Valgus 5°

done through a single medial approach, a moderate valgus deformity developed. This probably resulted from elevation of the periosteum only on the medial side of the bone, thereby stimulating the medial aspect of the epiphyseal plate more than the lateral.

Fusion of an epiphysis occurred in one case. The patient was a seven-year-old boy and the distal femoral diaphysis was approached through a medial and lateral incision. By x-ray visualization during operation it was observed that the medial screws were within one-sixteenth inch of the plate. The screws were withdrawn and replaced farther away. In the following months the medial half of the epiphysis fused. Varus became so pronounced that the screws were removed and supracondylar osteotomy was done. When last observed, the patient was ten years old and still growing. Hence the deformity had recurred and at that time growth was delayed three-fourths of an inch.

In a patient who had been asymptomatic for two and one-half years following the insertion of brass screws, pain developed in the lower thigh four days after an upper respiratory tract infection. The patient was febrile, the blood sedimentation rate was accelerated and the number of leukocytes was elevated. Upon x-ray examination, increased rarefaction was noted around the brass screws in the distal femoral diaphysis. The fever and pain subsided after two weeks of antibiotic therapy. Operation was carried out and the two screws were observed to be surrounded by necrotic granulation tissue. The patient was asymptomatic after removal of the screws.

Several observations would seem to indicate that epiphyseal stimulation is related to subperiosteal reaction:

1. In a review of femoral fractures in children it was found that overgrowth occurred in all cases—more with open reduction than with closed reduction. Overgrowth was greatest in cases in which a metal plate was applied, and only in those cases did stimulation persist for more than one year. The overgrowth did not depend upon where the fracture was situated in the shaft, and overgrowth occurred in the tibia also.

2. Moderate valgus deformity developed in all cases in which the stimulatory procedure was done through a single medial approach.

3. There was no difference between screws, pegs and drill-holes so far as the amount of stimulation was concerned.

4. No further stimulation was noted after the first few months following the procedure.

5. Wu and Miltner[5] in 1937, in an extensive experimental study with rabbits, repeated the procedures of Meisenback, Pearse, Ferguson and others and did not produce significant increase in growth. However, simple elevation of the diaphyseal periosteum resulted in definite lengthening in 19 of 23 rabbits.

In view of these observations it is felt that the stimulation which occurs is the result of periosteal elevation and subperiosteal hematoma and that any persistence of stimulation is brought about only by subperiosteal reaction. Perhaps prolonged stimulation could be best accomplished by elevating the diaphyseal periosteum and placing absorbable foreign material, such as chromic catgut, under the periosteum. Foreign material that is buried in the bone itself does not cause stimulation of the epiphyseal plate.

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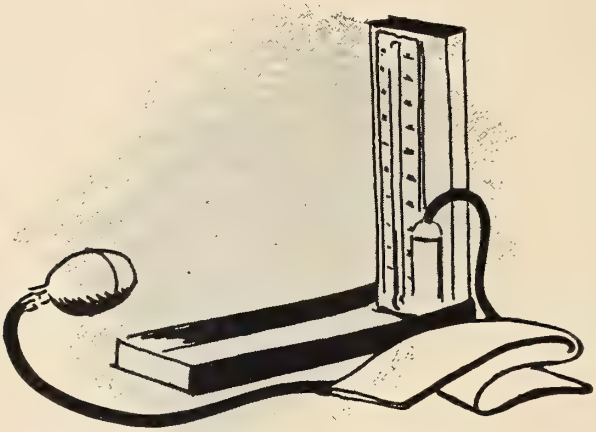

History of Pathology in California

PAUL MICHAEL, *M.D.*, Oakland

THE STORY of pathology in California, as in most of our states, is comparable to the story of other fields of medicine of a more or less similar nature, sometimes referred to as ancillary specialties. Conceived first as a rather nebulous and ill-defined sphere situated somewhere between the fields of bacteriology and anatomy, pathology experienced many pains of uncertainty before it emerged as a fully developed and recognized specialty of medicine.

Bacteriology and pathology were in their infancy even in Europe in the middle and latter parts of the Nineteenth Century and it took some time for the various advancements to reach the shores of America. Virchow published his immortal work on cellular pathology in 1858. Pasteur had only successfully inoculated against cholera in 1880 and proved his rabies prevention in 1885 and it was not until 1882 that Koch announced isolation of the tubercle bacillus. It was during these times and with this backdrop that pathology first came to be mentioned in California.

In 1858 Dr. Elias S. Cooper founded a branch of the University of the Pacific as a medical school in San Francisco. J. Morrison was named Professor of the Principles and Practice of Medicine and Pathology. After Cooper's death in 1864, the school was discontinued; but it was reorganized in 1870 as the Medical College of the Pacific and Edwin Bentley became Professor of Descriptive and Microscopic Anatomy and Pathology. Joseph H. Wythe became Professor of Microscopy, Biology and Pathology in 1874. The school (later to be the Stanford University School of Medicine) became the Cooper Medical College in 1882, and Wythe remained in his position on the faculty until his retirement in 1898. In the meantime, however, in 1893, a new chair of pathology was founded and filled by Albert Abrams. He was succeeded in 1898 by the beloved William Ophüls, who may be considered the father of pathology in California. Ophüls brought great brilliance to this department for many years both as a teacher and pathologist and was replaced after his long illness by William Dock, and later by the present professor and head of the department, Alvin J. Cox. Among the students of Ophüls are the illustrious David A. Wood, James McNaught, Jean Oliver, Edward M. Butt, Ernest M. Hall, Alvin J. Cox and Sidney C. Madden.

The University of California had a more timid and certainly more ambiguous beginning than Stanford. In 1878, the University catalogue listed a Lecturer on Pathology, Histology and Microscopy, but no individual's name was mentioned. One may infer that the subject was not an immediate success, for in the following year no mention of the course was made. In 1880, some reference was made to pathology but no specific course was cited. In 1881, a course was given but the name of the teacher was not mentioned. A very pertinent observation was made in the announcement of that year which gave some indication of the California attitude yet to come:

> *Contrary to the custom of Eastern medical colleges, the Regular Term of this school is held during the summer, not the winter months. The peculiar climate of San Francisco renders summer far the preferable season for prosecuting medical studies; hence, the regular session has always been held from June to November. During this period, and indeed, largely throughout the other months of the year also, cool trade-winds blow across the city daily, moderating the temperature and particularly favoring the study of practical anatomy and necropsy. The student in this city enjoys rare natural advantages for the healthful pursuit of his labors, such a contingency as his detention from lectures or clinics by stress or weather being absolutely unknown.*

From that year on, frequent mention was made of the teaching of pathology, but usually in the Department of Medicine or Histology. It was not until 1901 that Alonzo Taylor was listed as Professor of Pathology and in 1905 Phillip King Brown for the first time was listed as Instructor in Clinical Pathology. In 1910 and 1911, no mention was made of a professor of pathology in the catalogue. In 1911-1912, Frederick P. Gay was listed as Professor of Pathology and Glanville Y. Rusk as Assistant Professor. The course was given in the old Hearst Laboratory in Berkeley. The combination of Gay and Rusk continued until 1921 when Gay, who was fundamentally a bacteriologist, became Professor of Bacteriology in Berkeley. Rusk continued teaching as an Associate Professor of Pathology until 1928 when the present Chair of Pathology was created and he became the first to occupy it. Charles L. Connor came to California from McGill in 1928 as Associate Professor and became Professor and Head of the Department in 1930. He served in that capacity

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until his death in 1941. Among the students of Rusk and Connor were James F. Rinehart, who at present is Professor and Chairman of the Department; Jesse L. Carr, Harry Smith, Gerson Biskind, Leonard Buck, Alfred Heald, Stuart Lindsay and Warren Bostick.

The Los Angeles area was somewhat later than San Francisco in developing the field of pathology. Stanley P. Black came to Los Angeles in 1897 after studying pathology at Cook County Hospital under the famous Christian Fenger. Arriving in Pasadena, he opened a laboratory in Los Angeles and became Professor of Pathology at the University of Southern California Medical School. As a teacher and pathologist he wielded a great influence on the medical practice in his community. He was Health Officer of Pasadena and helped establish the first bacteriological laboratory in the city health office of Los Angeles. He became one of the original members of the Milk Commission of Los Angeles. In 1906, Northwestern University, his alma mater, bestowed upon him the honorary degree of master of arts. Black was a charter member of the Los Angeles Clinical and Pathological Society and in 1909 became president of the Los Angeles County Medical Association and vice-president of the American Medical Association. He continued to exert a great influence in medicine and pathology until his death in 1921. Dr. Mona Bettin was associated with Doctor Black and also did much to advance pathology in Los Angeles. At approximately the same time, Andrew F. Wagner was Associate Professor of Pathology at the College of Physicians and Surgeons in Los Angeles. Another important person associated with Doctor Black in the early phases of pathology in the Los Angeles area was Charles W. Bonynge, a graduate of the University of Southern California Medical School in 1903. He wielded a profound influence on early pathology in his community and developed an early interest in the Milk Commission. He taught at the University of Southern California Medical School for many years and his keen interest in medicine did much to influence the advancement of his specialty. Bonynge was the first pathologist to perform the Wassermann test in southern California. In his later years, he was Consulting Pathologist to the Children's Hospital and St. Vincent Hospital, where he died in October of 1951.

The first pathologist at the Los Angeles County Hospital was H. E. Charlton, who was appointed in 1910. He resigned in 1915 and was replaced by Clarence Johnson. Roy Hammack was appointed pathologist in the fall of 1916 but was given leave of absence to enter military service in 1917 and was relieved by James R. Scott. After World War I, Hammack returned as chief pathologist and remained until 1921, when he became affiliated with the Brem-Zeiler Laboratory. George Maner replaced Hammack in 1921 and remained until 1928 when he, too, joined the laboratory of Brem, Zeiler, and Hammack. Newton Evans, then Professor of Pathology at the College of Medical Evangelists, became chief pathologist at the hospital until his retirement in 1944.

On August 14, 1911, Drs. Walter V. Brem and A. H. Zeiler formed a laboratory which was destined to play an extremely important role in the development of pathology in the southern part of California. They had been associated in the United States Public Health Service under Gorgas during the construction of the Panama Canal. Brem and Zeiler were truly pioneers in the field of pathology-hospital relationship, for in 1915 they developed the concept of pathologists' being independent hospital contractors. Many other important developments can be traced to the wide vision of these two pathologists, who gradually attracted other men of outstanding ability. At present this group has its headquarters at The Clinical Laboratory on Westlake Avenue and operates and directs the laboratories of the Hospital of the Good Samaritan, Queen of Angels Hospital, the California Hospital, the Methodist Hospital, and the St. Francis Hospital. The staff at present consists of Doctors Maner, Wright, Camero, Tragerman, Rehbock, Cremin and Bangle.

Meanwhile there existed a very important and significant medical school in the Los Angeles area. The College of Medical Evangelists at Loma Linda became a real force in the medical field of education and the Department of Pathology was a dominant factor in its growth. Newton Evans came to this institution in 1914 and held the Chair of Pathology until his death in 1946. Evans gained local and national recognition as a pathologist and was responsible for the training of many outstanding students. Among the distinguished followers of Evans were Oren I. Cutler, Orlyn Pratt, the present head of the department, and C. S. Small, Clinical Professor of Pathology at the College. Many eminent pathologists have come from this institution.

The youngest medical school in the state, that of the University of California at Los Angeles, was fortunate in obtaining a native son of California as Professor and Head of the Department of Pathology. Sidney C. Madden, who was a member of the last class taught by the late William Ophüls at Stanford, was appointed to that position in 1951.

The intermediary period of pathology in the Los Angeles area was most productive, for during that period there came to the southland many able pathologists who were to guide this specialty into a place of high prominence throughout the nation. A. M. Moody came to the Huntington Memorial

Hospital in 1921 and left in 1924 to become pathologist to St. Francis Hospital in San Francisco. There he served until he became affiliated with St. Mary's Hospital in 1940. Moody was replaced by a man who was to play a very important part in the ascendency of pathology in the area. Alvin G. Foord came to the Huntington Memorial Hospital in 1931 and brought great ability and color to his specialty. He was president of the American Society of Clinical Pathologists in 1933-1934, a councilor in the period 1942-1946, an original member of the American Board of Pathology in 1936, and a founding member of the California Society of Pathologists in 1947. Ernest M. Hall came to the University of Southern California from Stanford in 1928, when he became Acting Associate Professor of Histology, and was appointed Professor of Pathology and Bacteriology in 1929. He served as a member of the consultant staff of Los Angeles County Hospital. He continued as professor until his retirement in 1951, when he was replaced by Hugh Edmondson, present head of the Department of Pathology. Edward M. Butt who came to Los Angeles in 1931 from Stanford, has played an exceptionally prominent role in pathology, as head of the Department of Pathology at the Los Angeles County Hospital as well as Professor of Pathology at the University of Southern California Medical School.

The Oakland College of Medicine and Surgery was founded in 1900 and began active teaching in 1902. Lectures were given on pathology by men with enthusiasm for the subject but fundamentally interested in other phases of medicine. In the catalogues of the school, courses on this subject were listed but no professor was mentioned by name until 1909 when Martin H. Fischer became head of the department. He, however, was more interested in physiology and left the following year to teach that subject at the University of Cincinnati. William B. Wherry became Professor of Parasitology in 1907 and became interested in parasitic infections. In July, 1908, he made the startling discovery that ground squirrels in Alameda and Contra Costa hills were infected with plague. Until then it had been thought that ship rats from the Orient were the only carriers of this disease. Wherry's work proved of profound importance in the epidemiology of this disease and resulted in great strides toward the elimination of the threat of spread by careful control of the squirrels in the area. Gertrude Moore, who was graduated from the medical college in 1907, became assistant professor in 1909, having trained meanwhile under Pauline Nusbauemer at the Western Laboratory. Dr. Nusbauemer had organized that laboratory some time previously in collaboration with R. A. Archibald, a veterinarian interested in bacteriology. Dr. Moore became Professor of Pathology in 1917 and was a dominant figure in the field of pathology until her death in 1953. Robert Glenn arrived in Oakland from Pennsylvania in 1911 and became the first full-time hospital pathologist in the East Bay at the Samuel Merritt Hospital. He remained at that post until his retirement in 1945. His successor was Charles Baker, the present pathologist. David Singman was the first full-time pathologist to the Alta Bates Hospital in Berkeley. He took that position in 1940. In 1947 Hamilton Fishback became the first full-time pathologist to the Herrick Memorial Hospital in Berkeley. He was preceded by William Reich who had ably performed the direction of the laboratory on a part time basis. Paul Michael came to the Peralta Hospital in 1931 and later assumed duties as pathologist to the Children's Hospital in 1932. Robert Parsons, the first qualified, full-time pathologist to the Alameda County Hospital, began practice there in 1946, and Justin Dorgeloh became the first full-time pathologist to the Providence Hospital, replacing Gertrude Moore when she retired in 1949. Leonard Ortega and George Loquvam have carried on the many activities in pathology since the death of Dr. Moore in 1953. Melvin Friedman has been pathologist to Kaiser Foundation Hospital in Oakland since its inception in 1945.

The history of pathology in San Diego has been interesting and, sometimes, discouraging. The pioneers struggled for many years before this specialty became fully accepted by the public and the medical profession. Harold A. Thompson came to San Diego in 1906 and started a laboratory. Rawson Pickard arrived in San Diego in 1910 after duty with the Public Health Service in Panama. Thompson became City and County Pathologist, as well as pathologist to the coroner. The hospitals had no regular pathologists but designated certain staff members to read slides and do autopsies. Both Pickard and Thompson were forced to supplement their incomes by administering anesthesia to patients having surgical operation. Henry E. Ruediger came to San Diego in 1923 after duty in the Public Health Service in the Philippine Islands and became pathologist to Mercy Hospital. Hal Summerlin, who had been pathologist in the Naval Hospital in San Diego, became pathologist to the Rees-Stealy Clinic in 1928 and, save for service in World War II, remained there until his death in 1951. Howard Ball arrived in San Diego in 1929 and became pathologist at the San Diego County Hospital. He has done much to stabilize pathology in the San Diego area, where he still is in practice. The late James Edgar followed Ruediger as pathologist at Mercy Hospital in 1940 and continued there until

1946. His successor is the very commendable Dominic A. DeSanto, who holds the position at present.

The Sacramento Pathological Society was founded in 1858. Curiously the founding members were practitioners of medicine and not pathologists in the true sense of the word, although they contributed much to the early history of medicine both in the county and in the state. The *California State Medical Journal* (now CALIFORNIA MEDICINE), incidentally, was first published in Sacramento in 1856 but moved to San Francisco the following year. Anthony Diepenbrock was the first physician to open a laboratory in Sacramento. That was in the year 1910. Later J. W. Jones set up a laboratory there. Surgical specimens, however, were sent to San Francisco until the advent of James Snyder in 1923. He continued to practice his specialty in Sacramento until his death in 1931. Paul Christman, the first pathologist at Mercy Hospital in Sacramento, remained there until his retirement in 1952. Following the death of Snyder, the laboratory in the Sutter Hospital was under the direction of S. Schuyler Pulford, who was also practicing internal medicine. Finally, in 1934, Paul Guttman arrived in Sacramento and the practice of pathology assumed the maturity which has continued to the present. In 1945 Guttman was joined by C. M. Blumenfeld. Lewis Nolan, who came from Minnesota in recent years, is at present the pathologist—and the first to serve full-time—at the Sacramento County Hospital.

The first pathologist in the Santa Clara area was Frederick Proescher, who arrived at the Agnew State Hospital in 1922. In 1924 he became pathologist to the newly formed San Jose Hospital and later pathologist to the Santa Clara County Hospital in 1933. In 1947, Proescher retired from the county service to become medical director of the Santa Clara County Blood Center. Paul Michael was the first pathologist to the O'Connor Sanitarium (now, O'Connor Hospital). He began service there in 1932 and divided his time between San Jose and Oakland for over three years. Leslie Grams, the present pathologist at O'Connor Hospital, has been there since 1949. Donald L. Alcott became pathologist to the Santa Clara County Hospital in 1951. Homer Hunt came to the Palo Alto Hospital in January 1948 and is there now. When Robert Dennis began to serve San Jose Hospital as pathologist in 1947, there were five technicians, four of whom were apprentices and not licensed by the state. So great has been the growth in this area that the hospital now engages 21 technicians, four secretaries and four apprentices. At present there are eight certified pathologists in Santa Clara County.

The physician first interested in pathology in the Santa Barbara area was F. R. Nuzum. Although more interested in clinical pathology than in pathologic anatomy, he did much to reflect credit on laboratory medicine. He was Chairman of the Section on Pathology and Bacteriology of the California Medical Association in 1926. The first full-time pathologist in the area was Clark Brown, who came to the Cottage Hospital in 1937 and left in 1950 to go to the University of North Carolina. W. J. Tomlinson served Cottage Hospital as pathologist from 1941-1942 and his place was taken by William B. Kroll. William Russell became pathologist at Cottage in 1946 and remained there until in 1948, he left to go to his present position in Texas. E. L. Benjamin succeeded him and serves there at present. John P. Blanchard assumed the duties of pathologist at the Santa Barbara County Hospital in 1949 and still serves in that capacity.

The first pathologist listed in Bakersfield was J. H. Inman, formerly of the University of California, who came to the Kern General Hospital in 1933. Victor Cefalu was one of the early pathologists in Bakersfield. He was there from 1939 to 1943. Jack Kirshbaum, now at San Bernardino, was pathologist in Bakersfield from 1947 to 1949 and did a great service for his specialty. Robert Huntington came to Kern General Hospital, after duty in the Navy, in 1949 and has continued in that position in a creditable fashion. William W. Hall was retired from the Navy in 1949 as a rear admiral and assumed the duties of pathologist to Mercy Hospital. A. W. Eaton joined Dr. Hall in 1952 and also became associated with the San Joaquin and Bakersfield hospitals. A man who did much for pathology in the Bakersfield area was Dr. Edward Butt of Los Angeles, who gave sage counsel on many occasions when problems arose requiring his aid and mature statesmanship.

Other areas throughout the state are also well covered by able pathologists: In Stockton, Elmer Smith and Harry Schneider are currently in practice in pathology. Jeanne Miller and Robert Purvis are serving the Modesto and Merced areas. Fresno is ably served by Clarence Newel and J. J. Bocian. Phillip Flynn is practicing in Redding and Dennis Shillam in Pomona. Owen Thomas practices pathology in Santa Rosa. Marvin H. Morris is pathologist at the St. Joseph Hospital in Eureka and at Trinity Hospital in Arcata. Ernest Simard has performed very ably in the practice of pathology in Monterey County since 1946.

Not mentioned here by name are many capable pathologists in large areas immediately surrounding major medical centers as well as in the armed forces or Veterans Administration hospitals in the state.

The International Association of Medical Museums, now the International Academy of Pathology, at present lists 38 members as resident Californians.

William Ophüls was the only organizing member from California when it was founded in 1907. The American Association of Pathologists and Bacteriologists also is creditably represented by Californians, the present roster listing 50 such members.

When the American Society of Clinical Pathologists was formed in 1922, there were five Californians among the founding fellows, only two of them pathologists—Robert Glenn of Oakland and Rawson Pickard of San Diego. Alvin Foord served as president in 1933-1934, the only Californian to hold this position. The Californians who have been councilors in the period from 1931 to date are Drs. Pickard, Hyland, Foord, Glenn, Guttman, Budd, Fisher, and Michael. California is represented by a number of active and interested Fellows in the society; and on three occasions, 1923, 1938 and 1946, California was the site of the national meetings.

Californians have also played a large part in formation and development of the American Board of Pathology. Organized in 1936, it had among its original members, Alvin Foord, who served until 1944, when he was replaced by James McNaught, formerly of Stanford and now at the University of Colorado. In 1946, Edwin W. Schultz of Stanford was elected a member and served two terms. Although many Californians were blanketed in by seniority when the board was originally formed, the first two pathologists to take and pass the examination were Theodore Kimball of Glendale and Paul Michael in May, 1937.

When the House of Delegates of the California Medical Association met in the Gold Room of the St. Francis Hotel in San Francisco in May, 1931, the delegates voted to form a Cancer Commission. Among the members of the original commission were William Ophüls of Stanford and Herman Zeiler of Los Angeles. Other pathologists have also been active in the commission during the following years, especially Edward Butt and David Wood, the latter having served as secretary for many years. The first slide conference sponsored by the Cancer Commission was held on May 1, 1932, at the White Memorial Hospital in Los Angeles. At that time, Zera Bolin was chairman of the Section on Pathology and Bacteriology and George Maner was secretary. At present this conference is held twice a year. It has become one of the outstanding meetings of pathologists in the country, attracting large numbers of practitioners of this specialty from all over the state.

The Cancer Commission now is associated with the Tumor Tissue Registry and aids pathologists in many centers of the state where study groups are held, such as Los Angeles, San Francisco, Oakland, San Diego and the Central Valley district. The slide sets that are studied are also made available to other pathologists throughout the state for study. The Tumor Tissue Registry now operating at the Los Angeles County General Hospital first took form during the fall of 1948 under the sponsorship of Edward Butt, chief pathologist to the hospital, and the first conference was held in December of that year. The original group consisted of Drs. Budd, Edmondson, Fisher, Foord, Keasbey and Tragerman. Edward Butt and Ernest Hall were ex officio members. In June, 1949, the tentative constitution was adopted and the following officers elected: Alvin Foord, chairman; O. B. Pratt, vice chairman; Ernest Hall, secretary. In addition, the following were members of the Registry Committee: Drs. Budd, Butt, Edmondson, Fisher, Kahler, Keasbey, Maner, Tragerman and Zundell.

The registry was first organized under the sponsorship of the Los Angeles County Tumor Board and continued so until it came under the sponsorship of the Cancer Commission of the California Medical Association in 1952. Since that time, the registry has been supported by the California Division of the American Cancer Society and the Cancer Commission of the California Medical Association. The first Cancer Commission Slide Conference which the registry prepared in its entirety was held in May, 1950, at San Diego. Since that time the registry has been preparing all the slide sets as well as excellent photomicrographs for all the biannual seminars. The present officers are H. Russell Fisher, chairman; John Budd, secretary; Edward Butt, treasurer.

The Section on Pathology and Bacteriology of the California Medical Association was formed in 1922 and William Ophüls became the first chairman. Since then the following pathologists have served as chairmen of the section: Drs. Brem, Rusk, Evans, Nuzum, Moody, Hammack, Kellogg, Cummins, (E. M.) Hall, Bolin, Proescher, Maner, Pickard, Wood, (Gertrude) Moore, Foord, Guttman, Budd, Ball, Carr, Edmondson, Rinehart, Osborne, (Isabelle) Perry, Brown, Biskind, Small, Bostick, Tragerman, Blumenfeld, Camero and Michael. At first this was the only common meeting ground of pathologists in the state and it served a very good purpose both for the discussion of problems of the pathologists and as a scientific outlet for the activities of the group. During the later years it has served primarily as a scientific outlet at a very high intellectual level.

Many Californians were present in black tie at the headquarters of the American College of Surgeons in Chicago when the Founding Fellows of the College of American Pathologists met in October of 1947. H. Russell Fisher has served on the Board of

Governors and has been chairman of the Ethics Committee for many years. Among the Founding Fellows was David Wood of San Francisco, who was destined to become president of this elite organization. David Wood has done so much for pathology and pathologists in California that this honor seems only right and fitting. Pathologists throughout the country have become keenly aware of the place which he has gained in this sphere of medical practice.

Acceleration of growth and expansion of pathology in California began in the post-World War II era. Many pathologists had been stationed in this area during the war or had temporary duty here while in the armed forces. A great number of them are now resident in the state. When California experienced that great increase in population following the war, greater hospital facilities were needed. With this need came a demand for pathologists to serve the hospitals, and so developed the "great migration" of pathologists to California. New names appeared. Drs. Fisher, Charles Baker, DeSanto, Nathan Friedman, Hummer, Dennis, Simard, Tragerman, Keasbey, Melvin Sommer, Melvin Black and others became new figures in this specialty. It was at about this time that some of the older heads saw the need of uniting the pathologists of the state into one closely knit organization. Thus was born that lusty child of our time, the California Society of Pathologists.

On May 1, 1947, at the California Medical Association convention in Los Angeles, a meeting was held concerning the possible organization of certified or qualified pathologists of California. The temporary officers were Louis J. Dyke, chairman; George Maner, vice chairman; and William O. Russell, secretary. The Board of Governors was made up of George Hummer, Jesse L. Carr, Alvin G. Foord and David Wood. On June 22 these officers met in Santa Barbara and decided to poll by postcard all the pathologists in California as to their wishes regarding joining the state organization. On December 14 the organizational meeting was held in conjunction with the Slide Conference in Santa Barbara. Eighty pathologists were present and the temporary officers were duly elected as permanent. There were 54 charter regular members and six associate members in the original group. On February 3, 1948, Louis Dyke died and George Maner became president to complete the unexpired term. He then was elected president and later was succeeded by Robert Parsons. In 1948, Russell Fisher became secretary and continued in that office until 1953 when he became president-elect and was replaced by Paul Michael as secretary. The presidents following Parsons have been Drs. Foord, Guttman, Budd, Biskind and Fisher. With the formation of this organization, pathology assumed a position of prominence throughout the state. The society adopted a dominant role in enhancing the stature of pathology in California. Many accomplishments have resulted from the organization on a statewide level. Meetings are held twice a year—one in the winter in conjunction with the Southwestern Branch of the College of American Pathologists and one in the spring with the California Medical Association; both, in turn, with the Slide Conference of the Cancer Commission of the California Medical Association. The society's membership includes, besides Californians, the majority of the pathologists of Arizona, New Mexico, Nevada and Utah. It is the largest such organization in the United States and has united the north and the south, the mountains and the valleys, the academic and the hospital pathologists. It has served as watchdog, always alert for the welfare of all pathologists. Now it can be said truthfully that pathology has matured and finally become of age in California, keeping pace with the rapid strides made in other fields of medicine and contributing its share for the betterment of medicine.

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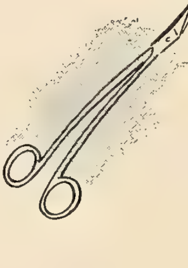

Herniation of Intervertebral Discs

An Evaluation of the "Indirect Signs"

A. JUSTIN WILLIAMS, *M.D.*, and TOM FULLENLOVE, *M.D.*, San Francisco

• *The incidence of so-called indirect signs of posterior herniation of an intervertebral disc in a series of working men who had no symptoms referable to the back was compared with the incidence of those signs in a group of cases in which herniation of a disc was proved at operation. There was no significant difference in incidence. In the cases in which herniation was proved at operation, it occurred no more often at a level where there was a thin disc than at a level where the disc was of normal thickness.*

DURING THE PAST several years many physicians have accepted as valid the so-called indirect signs of posterior herniation of an intervertebral disc. This has led to erroneous diagnosis in some cases, and to unnecessary examinations and treatment, not to mention compensation awards that may have been unwarranted. Myelographic studies in more than 2,500 cases have brought conviction that these indirect signs do not indicate posterior herniation of an intervertebral disc, but at best can only point to degeneration of a disc, a condition of less clinical importance.

Nevertheless, in a case in which herniation of a disc is suspected, a preliminary x-ray examination of the spine should always be made. Usually a single anteroposterior and lateral view of the lower thoracic and entire lumbar spine, and a lateral spot film of the lumbosacral region will suffice. These films are more to make certain other disease is not present than to aid in the diagnosis of posterior rupture of the disc. To cite Bradford and Spurling:[1] "A clinical diagnosis of ruptured intervertebral disc would be impossible were it not for the fact that almost all conditions producing a similar picture which were not excluded by physical examination, can be eliminated by roentgen examination. The more frequently encountered lesions are primary and secondary neoplasm, decalcifying vertebral disease, spondylolisthesis, fracture, inflammatory disease and anomalies of significant types."

The present study, limited to the lumbar spine, which is the common site of herniation, was undertaken to determine what value the commonly accepted "indirect signs" of herniation might have in the diagnosis of that condition. The signs considered were: Narrowing of the disc space, flatness of the lordotic curve, scoliosis and localized hypertrophic spur formation.

Usually narrowing is indicative of either degeneration and shrinking of the nucleus pulposus or of protrusion in some direction—anteriorly, laterally or into the vertebral body or into the neural canal. In the lumbar region each disc is thicker than the one above, the dorsolumbar being the thinnest and the fourth lumbar the thickest. Orley[3] said that, "when a distal lumbar disc is narrower than the adjacent proximal one the condition is decidedly abnormal." However, this does not apply to the lumbosacral disc, which is usually thinner than the fourth, or to the discs of transitional vertebrae, which are almost always thinner. Willis[5] observed that the lumbosacral disc "may vary in width anywhere from that of the fourth to the first sacral disc."

Actually, narrowing of the lumbosacral disc should not be considered clinically significant unless there is definite intrusion of the superior facets of the sacrum into the neural foramen. No reliance can be placed on this sign in the diagnosis of posterior herniation.

In the present study it was arbitrarily decided to classify the lumbosacral disc as thin if it was less than one-half the width of the fourth at the posterior margin. With this the criterion for "thin disc," undoubtedly some normal discs were included in the total classified as abnormal, but since there are such variable structural differences at this level, it is doubtful that a more accurate criterion can be found.

Flatness of the back, or lessening of lordosis, is a frequent finding, but is not diagnostic of posterior herniation, for it may also be caused by herniation in any direction or by muscle spasm caused by degenerative or rheumatoid arthritis of the apophyseal joints, by pain of neoplasm, by inflammatory disease or by congenital anomaly.

Hypertrophic spur formation occurs in many persons who make no complaint of discomfort in

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the back, and in most instances this sign of degenerative disease is of little or no importance. Localized spur formation may occur following injury or perhaps from faulty posture, as well as bulging or degenerated discs. It cannot be relied upon as a sign of such degeneration and certainly not as indicating herniation.

Scoliosis is frequently a concomitant of posterior herniation, but its presence cannot be of value in diagnosis of that condition, for it may be due to a wide variety of causes and it quite commonly occurs in persons who have no discomfort in the back.

Not long ago a large industrial company[4] decided to survey a group of employees who had worked for the company for ten years or more, who denied having discomfort in the back either on or off the job and who had not asked for treatment for back disability at any time during their employment.

Chosen for the survey were 200 men in the outside equipment and construction forces, including some drivers and supplymen, who had worked in those forces exclusively for not less than ten years. The 200 men were divided into two groups, one made up of those under 38 years of age, the other of those over 38. By chance there were 99 in the younger group and 101 in the older. In the younger group the average age was 33 years and the length of service in the company 11 years; in the older group 48 and 24 years, respectively.

Anteroposterior and lateral films of the entire lumbar spine and a spot film of the fifth lumbar vertebral area were made. All abnormalities observed were reported in the following classifications: Congenital, traumatic, degenerative, inflammatory, arthritic, neoplastic and structural. In the entire series there were only 16 men without one or more of those abnormalities. Scoliosis was noted in 91 cases, decreased lordosis in 44, one or more discs thinner than normal in 80 and local spurs in 18. In 51 of the subjects some abnormality at the lumbosacral level was seen.

For purposes of comparison, 68 unselected cases proven at operation were reviewed with attention to the concomitance of "indirect signs" and herniation. The incidence of those signs in the group of 200 symptomless men was used as control.

TABLE 1.—*Incidence of indirect signs of herniated intervertebral disc*

Indirect sign	68 Symptomatic Cases Proven at Operation* (Per Cent of Cases)	200 Symptomless Working Men (Per Cent of Cases)
Lessened lordotic curve	25	22
Scoliosis	20	45
Local spurs	40	37
Disc thinner than its neighbors	66.6	40

*Herniation was observed in 60 cases—the fourth lumbar disc in 30 cases, the fifth lumbar in 29 cases and the third lumbar in one case.

The incidence of most of the indirect signs was somewhat greater in the presence of herniation, but not enough greater to warrant conclusion that the association is significant (Table 1).

Herniation at the level of a thin disc occurs no more frequently than at the level of a normal disc. In 50.4 per cent of the 60 cases proven at operation, herniation occurred at the level of a thinned disc. The remaining 49.6 per cent of cases were divided as follows: Herniation without thinning of any discs, 33 per cent; herniation at a level above a thin disc, 10.0 per cent; herniation below a thin disc, 6.6 per cent. Hampton and Robinson[2] noted thinness of the fourth disc in only about one-third of cases of posterior herniation at the fourth disc; and in cases in which the lumbosacral disc was thin, herniation occurred more often at the fourth disc than at the lumbosacral.

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What Psychiatrists Think About Alcoholism

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• *The one approach most favored for alcoholism by psychiatrists in Southern California who answered a questionnaire is membership in Alcoholics Anonymous. Ninety-nine per cent of them approved Alcoholics Anonymous, and 80 per cent had referred patients to the organization. Yet they believed only 10 per cent of the persons who join A.A. remain sober for over two years. This against the claim of A.A. that 60 per cent or more of their fellowship are recovered emphasized the pessimism of the psychiatrists questioned.*

Ninety per cent of the psychiatrists who replied said they do not treat alcoholics or that they limit the number or the type they will accept for treatment. They obtain recovery, they said, of 10 per cent of patients, improvement of 50 per cent, and the rest are unchanged.

The emphasis in psychiatry is on elimination of the anxieties leading to alcoholism; in Alcoholics Anonymous the emphasis is on the strength to bear these anxieties. Ninety per cent of the replies received were in favor of clinics for alcoholics, and the respondents felt that governmental agencies should support these clinics. Under such circumstances psychiatrists would combine their abilities with psychologists, social workers and Alcoholics Anonymous. Thirty-five per cent of psychiatrists said they are willing to work in a clinic, the majority without recompense.

A NEWLY CONSTITUTED committee on alcoholism of the Southern California Psychiatric Society waited enthusiastically for one and a half years for important problems on alcoholism to be referred to it. Time went on, nothing was referred, and under the pressure of idleness, the committee began to wonder if the whole problem had been solved while our psychiatric backs were turned. Accordingly, a questionnaire was constructed to determine whether there was any opinion on the various aspects of the alcohol problem, and if so, what these opinions were. Psychiatrists were canvassed as to treatment of alcoholics, therapeutic results, types of treatment utilized, and hospital and clinic facilities available and desired. The attitude of psychiatrists toward certain medicolegal problems and their opinions regarding Alcoholics Anonymous were obtained. Of the 200 members, 86 (43 per cent) responded.

From the replies it was noted that psychiatrists show considerable discouragement with their present methods of attacking the problem of alcoholism. They are often not interested in treating alcoholic patients, an apathy which is illustrated by the fact that almost half of the psychiatrists questioned will not accept them as patients. Two-thirds of the psychiatrists will not accept alcoholics who require hospitalization. Furthermore, half of the psychiatrists who are willing to treat alcoholics, strictly limit the number accepted to one or two. Those who accepted alcoholics had only 6 per cent of their practice in this category. Almost 90 per cent of the psychiatrists who replied either do not treat alcoholics or limit the number or type that they accept.

Those reporting treated a total of 716 patients in the year preceding this study, one-half of one per cent of the estimated 150,000 alcoholics in Los Angeles County. The patients here reported included those from all sources, such as state hospitals, clinics and private practice. Hence the treatment of such limited numbers cannot in itself influence the total problem very much. However, it must be remembered that psychiatric techniques have infiltrated into the methods used by many other groups having contact with alcoholics, including psychologists, social workers and social scientists.

Most alcoholics who have received psychiatric treatment have obtained it through hospitals or through a very small group of psychiatrists in private practice. Thus only 10 per cent of psychiatrists treated over 80 per cent of all the alcoholics who were treated by the psychiatric profession. This appears to be part of a trend toward creation of a specialty in the treatment of alcoholism. With the encouragement of suitable facilities, such specialization could make important contributions to the problem.

Alcoholism as a form of deviant behavior is acknowledged to be within the sphere of interest, study and treatment of psychiatrists. Yet the contact of psychiatrist and alcoholic is often more a sporadic occurrence than an accepted factor in our system of psychiatric therapy. A few psychiatrists are in clinics, or on services in which they do not come into

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contact with alcoholic patients, but a large proportion of them deliberately avoid the treatment of alcoholics. The nature of this "symptom"—and psychiatrists consider it a symptom rather than a disease—is the most important determinant. During the alcoholic bout, the whole personality of the alcoholic is engulfed, and the rational part of the ego, which alone has the capacity to observe and judge his behavior, is swept away. An alcoholic presents even more difficulty than a psychotic person, since the latter's lack of contact is not due to a toxic state and he can be reached by a variety of techniques. Frequently enough, a psychiatrist makes progress with an alcoholic patient who may seem to be on the verge of an important insight. Then comes a monumental binge, extensive acting out that destroys the possibility of further therapy, and the psychiatrist sees his investment of time and energy wasted. The tolerance to stress is often so low that even slight increases in tension may precipitate the lost weekend. Many psychiatrists will have had the experience of observing an alcoholic who feels so guilty after a bout that he must drown this voice of conscience in another alcoholic episode. After a few disappointments like this, psychiatrists often revert to the treatment of "normal" neurotics. Even if the symptom could be controlled in some way, and the alcoholic kept sober during the course of treatment, his very immature type of personality often presents insuperable problems. Antabuse,® which has been a boon to alcoholics who have been highly motivated, often emphasizes, by the occurrence of psychoses, psychopathic behavior, and personality changes, the severe character disorder underlying the alcoholism. Prolonged hospitalization is frequently advised, but at best it is uneconomic and, at worst, useless to the patient as far as therapy is concerned. It seems so patently absurd to keep a rational appearing and rational acting patient incarcerated, that often the psychiatrist aligns himself with him, and he is discharged to an almost certain repetition of his behavior. These are some of the factors that explain why it is that psychiatrists treat so small a percentage of alcoholics.

Nevertheless, psychiatrists appear convinced that psychotherapy is the proper approach. For example, 85 per cent of them use insight therapy—a difficult and time-consuming type of psychotherapy, that is aimed at giving the patient understanding and, finally, resolution of the emotional problems which led to the alcoholism. Perhaps there will be a greater gain than that of individual treatment, itself, that will come from this laborious work of insight therapy (and psychoanalysis is a specific type of insight therapy)—perhaps a more intensive and broader knowledge of the psychopathology of the alcoholic patient.

Psychiatrists show little enthusiasm, on the whole, regarding their therapeutic results. They reported a little over 10 per cent of patients recovered, but over half of the psychiatrists replying reported no recoveries whatever. Improvement occurs in about 50 per cent of the patients, say the psychiatrists, and about 40 per cent are left unchanged. It is difficult to evaluate what this means, other than that the psychiatrists believe they obtain such improvement rates. Valid standards of recovery and improvement have by no means been established. While abstinence can be considered a definite criterion, and a measurable one, it was obvious, from the nature of the replies, that such abstinence is not always the goal of therapy. Many psychiatrists feel that improvement in adjustment is a more valid gauge than total abstention. Considerable caution is necessary, however, since one can easily delude oneself into claiming improvement because of a better marital status, while the patient becomes insolent to his bosses and is fired from one job after another. Perhaps there is an important lesson here that psychiatrists have failed to learn, and that other groups such as the religious groups and the fellowship of Alcoholics Anonymous have rightly emphasized—namely, that complete and total abstinence comes before any attempt at rehabilitation. A psychiatrist sometimes, in order not to discourage the patient from seeking help, may give an ambiguous answer to a patient's question as to whether he will be able to drink normally in the future. Such normal drinking involves a basic change in the personality, most difficult to achieve. Yet some therapists persist, consciously or unconsciously, in their efforts for the "complete cure," to their disappointment in therapy and to the detriment of the patient. How to reconcile the attitude of prohibition, which implies disapproval, with an attitude of tolerance and acceptance, is one of the psychotherapist's major dilemmas. Often a situation quite divorced from reality develops, where the therapist heroically, with the correct sympathetic but objective attitude, tries to work with a befuddled, bleary-eyed, weaving patient, who has somehow faithfully attended his therapeutic session. It may be that, with our current knowledge and capacity, the psychiatrist should be content to attain an arrest of symptoms, rather than the hypothetical complete cure.

It is interesting to compare the findings in this study with those of Lemere's[5] valuable report on the life history of alcoholics. He found that 13 per cent of alcoholics spontaneously became able to drink in moderation; or became abstinent, on their own or under the influence of religious conversion.

One per cent stopped drinking because of medical treatment, but this was before the era of the newer techniques. If all of these categories are included as recovered, the 10 per cent recovery rate reported in the present study is less than the spontaneous rate. However, 86 per cent in Lemere's study showed no improvement, and assuming that all the improvement claimed by psychiatrists answering the questionnaire is valid, it can be concluded that many patients are helped who would not otherwise obtain relief.

Upon more detailed study of the therapeutic results reported, it was noted that the recovery rates cited by different psychiatrists varied from zero by some to 80 per cent by others; the improvement rate from zero to 100 per cent; and the number reported unchanged also ranged from zero to 100 per cent. Why is there such great disparity in therapeutic success? Since psychotherapy, the method of choice of psychiatrists, has no standard technique, and since it is dependent on complex emotional factors both in the patient and in the therapist, some disparity in results can be expected. So great a variability, however, must go far beyond such factors; far beyond the inevitable difference between the optimist and pessimist, psychiatric variety, and even beyond the lack of valid criteria for improvement. It is possible that the appraisal of psychiatrists' opinions becomes so chaotic because of the conflicting emotional attitudes of psychiatrists toward alcoholic patients.

The alcoholic drinks because he seeks pleasure, and because by drinking he avoids pain. Our psychiatric attitude to the alcoholic varies according to which aspect of the alcoholic is emphasized at a given time. If we picture the alcoholic as a tortured soul, desperately seeking an escape from an intolerable conflict, we are inclined to be helpful and sympathetic. If we see him as an irresponsible playboy, indulging in Bacchanalian revels, we are determined, perhaps unconsciously, to let him suffer his sinful fate. Especially is this true, if we too harbor similar but carefully concealed impulses within ourselves. It would be naive to disregard such considerations as factors in the rejection of alcoholics for treatment, and as elements in the attitude of therapeutic pessimism. The comments of the respondents bear out the two polarities in attitude. Some showed sarcasm, contempt, defeatism, impatience; others indicated tolerance, sympathy and an objective psychiatric attitude. Occasionally a certain overenthusiasm, suggestive of reaction formation, appeared in some of the responses.

And now, having criticized ourselves in relation to the patient, let us criticize ourselves regarding our attitude to hospitalization of alcoholic patients. Forty per cent of us do not know how to secure admission of a patient to a state hospital, and 60 per cent have never arranged such admission. This widespread ignorance of the resources available to deal with the problem is the natural outgrowth of our attempts to ignore the alcoholic in the community. We, in turn, criticize the method of handling commitments to state hospitals. Almost half the psychiatrists consider admission procedures unsatisfactory, and the most numerous complaints center around the lack of provision for voluntary admission of alcoholics to state hospitals.

Easy voluntary admission, with discharge only on the recommendation of the hospital physician, is the most frequently requested change. About 40 per cent of the psychiatrists reporting had had patients who were refused admission to state hospitals, and their comments indicated that they felt this refusal was arbitrary and unjustified, and that the legal procedures or the way they were administered were grossly defective. There has been progressive difficulty in obtaining commitment for alcoholic patients, and the reasons given by the courts have often been quite vague or dependent on the opinion of the court as to whether the patient might or might not benefit. Many respondents felt that admission depended upon the idiosyncrasy of the judge, rather than a consistent interpretation of statutes or community needs.

In certain respects the psychiatrists showed much difference of opinion. About 60 per cent of the respondents approved of legal commitment, even where the alcoholics were not immediately dangerous to themselves or others. Many felt alcoholics were "incompetent" to make such decisions themselves, or to handle their own affairs. The other 40 per cent of the psychiatrists answering the questionnaire felt that legal commitment was an unwarranted interference with the liberties of alcoholics, that such power of commitment could be abused, and that lack of effective therapy made commitment unreasonable. About 25 per cent of the psychiatrists felt that hostility and absence of cooperation would be the inevitable result of coercion, but 75 per cent said that treatment could be successful in spite of enforced hospitalization. Some respondents specifically mentioned that incarceration was often necessary, if only for the benefit of the family and relatives of the patient, as well as his social milieu.

It would be burdensome to cite statistics proving the magnitude of the problem of alcoholism. Almost anyone can readily realize, however, that it is extensive enough to constitute a public health problem, and must be attacked on a broad scale. California, perhaps because of difficulties peculiar to its rapidly growing population, has not yet instituted an adequate program for the rehabilitation of alcoholics. There have been many investigations, sponsored by state or county, with excellent plans and recommendations, which unfortunately have not been implemented. It is to be hoped that one or more of the contemplated programs can survive the vicissitudes of legislative action and constitute a sound basis for rehabilitation efforts.

Sixty per cent of the psychiatrists said they did not have adequate facilities for private patients in hospitals and sanitaria. Even where present, such facilities are far beyond the means of the average patient. Seventy per cent of psychiatrists felt that adequate hospital facilities for alcoholic patients were lacking. This is a special problem in Los Angeles, which ranks eighteenth among the nation's cities in general hospitals, although it is one of the largest cities in the country. Furthermore, 63 per cent of the hospitals in this area are profit-seeking, as compared with 24 per cent in the country as a whole. These circumstances often make hospital beds for acutely ill patients either unavailable or too expensive, curtailing rehabilitation work at a critical therapeutic period. When the respondents reported the facilities they would prefer, 36 per cent said clinics, 33 per cent hospitals, 22 per cent sanitaria, and 9 per cent farms. When asked directly if they favored an alcoholism clinic, 89 per cent of the respondents were in favor. Those against such clinics felt they had adequate clinic resources, that there was no need, or that alcoholism should not be separated from other psychiatric disorders. The psychiatrists uniformly felt that governmental financial resources at all levels, including federal, state and county, should be utilized, and that this should be supplemented by community aid.

The attitude of the psychiatrists regarding the role of their psychiatric society to an alcoholism clinic was made quite clear in their descriptive phrases. The relationship of the society to the clinic would be, advisory, contributory, investigative, consultative, supportive, encouraging, and recommending. Assistance in staffing, in research, study and teaching, and aid in organization, were some of the ways in which the society was willing to help. Moreover, 35 per cent of the psychiatrists would give their time, a majority without recompense. It is apparent that there is a considerable amount of psychiatric talent available for the problem of alcoholism.

The one approach most favored by psychiatrists for the treatment of alcoholism is membership in Alcoholics Anonymous. Ninety-seven per cent of the group are familiar with the methods of this fellowship, and 80 per cent have referred patients to it. Ninety-nine per cent of psychiatrists are favorably disposed toward Alcoholics Anonymous. Such unanimity is so rare that it gives rise to wonder as to the basis for it. One might expect the psychiatrists to believe that Alcoholics Anonymous' record of recoveries must be exceptionally high to warrant such enthusiasm, yet when the opinion of psychiatrists was asked, the following was the composite of replies: They felt that 40 per cent of members of A.A. remain abstinent for one year, 20 per cent for two years, and 10 per cent for over two years. Therefore there was the paradox of enthusiastic approval of the A.A. method, with a very cautious appraisal of the results. Furthermore, the psychiatrists felt that just 50 per cent of A.A. members are well adjusted. It should be noted that Alcoholics Anonymous[2, 3] claims much more favorable results, although the organization apparently collects statistics only in a casual way. "Fifty per cent of alcoholics," A.A. says, "who stay with us and really try, get sober and stay that way. Twenty-five per cent do so after some relapses, and the rest usually show some improvement." A somewhat contradictory note is sounded by the A.A. statement, "Many problem drinkers do quit A.A. after a brief contact, maybe three or four out of five." But they "have the agreeable impression that half the original exposures will eventually return, most of them to recover."[3] G. Kirby Collier[4] cited a recovery rate of 50 per cent to 60 per cent. It has been reported by the National Committee on Alcoholism[6] that of 7,840 referrals to doctors, hospitals, clinics, and Alcoholics Anonymous, 3,057 "recovered"—that is, 39 per cent. "Recovery," in this case, meant sobriety of a year and a half to five years in duration.

It is generally acknowledged among psychiatrists that the problem of the addict is one of the most difficult that psychiatry has to contend with. Often the addicted person cannot make progress in therapy until he gives up the very addiction for which he came to therapy. This paradoxical situation exists because the satisfaction in the addiction destroys the impulse to correct it. This emphasizes the advantage of the moralistic and religious approaches: Drinking is sin; it is immediately and definitely interdicted. This leaves only two shades of morality to deal with: black and white. The alcoholic cannot delude himself when he reduces his drinking from a quart of whisky to a pint, or changes from bourbon to beer. It is all or nothing. So much the better when he does his abstaining in a group, and has the approval and praise of his confreres. The shattering of his fantasies of omnipotence, the mobilization and atonement of guilt, and the construction of powerful reaction formations, are further weapons with which to hold destructive impulses in check. When to all this is added the opportunity to proselytize, and thereby keep his pathological drives in repression, the sum is a successful combination of techniques. Further study of the success of such groups as Alcoholics Anonymous in a scientific manner, may indicate the road to a method of treatment utilizing psychiatric resources and techniques.

In the meantime, the most efficient use should be made of the psychiatric resources available. The psychiatric team, which consists of a psychiatrist, a psychologist and a social worker who combine their abilities in an integrated manner, is a basic unit. It has proved eminently successful in adapting psychiatric techniques to the treatment of neuroses, to borderline psychoses and to child therapy and guidance. It is being progressively increased in scope and applied to the treatment of alcoholics in many parts of the country. It represents a broader attack on the problems of alcohol than is possible in the office of a private psychiatrist; and, through the social worker member of the team, it can reach out and influence the environment of the alcoholic. When, in addition, the resources of the hospital and Alcoholics Anonymous are available, we have a multidisciplinary approach, which promises to be much more effective in coping with the problems of alcohol addiction.

Looking at one aspect of these opinions, we might say that psychiatrists show an attitude of bewilderment, apathy and confusion and that they move in a general aura of pessimism. There is an impatience, and even contempt, because of their feelings of therapeutic ineffectiveness. At the same time, however, there is a sizable group with an eagerness to work, to investigate and to contribute their time and abilities to a solution of the problem of alcoholism. This group is by no means discouraged, and is willing to accept the challenge of the problem.

It appears from the perplexity of the psychiatrist, that the greatest need is further knowledge of the alcoholic and a more basic understanding of his psychopathologic state. This can only be acquired by an extensive and unremitting research program. Certainly psychiatrists should not attempt to oversell their capacity to ameliorate the problem of alcoholism today, and the emphasis could well be placed on clinics where research is prominently featured, along with rehabilitative efforts. There is always the impulse to influence legislators by pointing out the dollars and cents savings through "curing" alcoholics. If we avoid the temptation of claiming immediate far-reaching results, we can better concentrate on productive long-term plans for the future.

8820 Wilshire Boulevard, Beverly Hills.

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Discussion by **W. A. OLIVER, *M.D.*, Napa State Hospital, Imola**

Dr. Hayman has presented an extraordinarily interesting and perceptive paper on a subject that badly needs some airing. It is high time that we talked out loud about this paradoxical situation in which a symptom complex exists which we insist is psychiatric although to a large degree we shun the responsibility for the treatment of patients suffering from this same condition. I am sure from my own experience that the author's sampling of practice in his area well represents a cross-section of practice elsewhere. We must surely agree with the validity of the reasons for this rejection as outlined in this paper.

There are, perhaps, two others which might be pointed out. Let us first turn to the estimates of therapeutic results reported by the group who were sampled. These show an astonishing range in some categories—as much as from zero to 100 per cent. One of the reasons for this is the lack of clarity in the formulation of goals of treatment, as has been so aptly expounded by the author. The other is the notable lack of reliable, long-range, independent assessment of treatment results.

There appear to be two common figures associated with reports of this type: 10 per cent and 50 per cent. I have frequently noticed over the years that estimates of beneficial results of a treatment for alcoholism, if made by the enthusiasts for the program, will be 50 per cent; if the evaluation is made by others, it is usually 10 per cent.

This is one of the chief problems facing the newly organized California Alcoholic Rehabilitation Commission. The chairman, Dr. Theo K. Miller, has frequently stated that the Commission cannot conscientiously proceed with the disbursement of public funds without having some evaluation of the success or lack of success of those treatment programs now in operation. Therefore the Commission has included in its budget a sum of money to pursue follow-up studies by scientific epidemiological and statistical methods of such things as state hospital programs and public clinic programs.

The other possible reason for lack of enthusiasm on the part of psychiatrists for treating alcoholic patients is the extraordinary physical difficulties surrounding the problems of dealing with such patients. As all of us surely know, the alcoholic demands unlimited patience, often beyond the limits of ordinary endurance. The psychiatrist must be doctor, priest, policeman, and (last, but not least) nursemaid—and all of these things frequently at 2 o'clock in the morning. It is no wonder, therefore, that many private practitioners shy away from this type of case. It seems to me the answer to this is a suitable combination of in-patient and out-patient facilities, both public and private, that may be used interchangeably with a minimum of red tape to adequately handle the various situations that come up in the ordinary course of treatment of an alcoholic. That there is a definite place for psychotherapy in the treatment of alcoholism can hardly be questioned but, as Dr. Hayman indicated, it can be only effective at the proper time and when the patient is accessible.

As to hospital facilities, here again we are faced with a serious block in the way of an adequate treatment program. Most private general hospitals will not accept alcoholics and, as has been pointed out, the private sanitaria are beyond the means of most people. This leaves the state hospital; and of course the difficulties surrounding admission to the state hospital have been justly criticized. If the old controversy between the medical and legal professions can be resolved and a mechanism found whereby adequate treatment can be given with suitable protection of constitutional rights, we will have traveled a considerable distance in facilitating the handling of this problem. My understanding is that this problem is almost peculiar to the United States; that is to say, we are most conscious of protection of legal rights than are European hospitals or even Canadian hospitals. Possibly, this is as it should be, but it does present many difficulties. The suggestion was made by some of those answering the questionnaire sent out by Dr. Hayman that there be a voluntary admission with release only on the recommendation of the hospital physician. This would, of course, not be possible under our present regulations. Not only the admission but the hospital stay itself is voluntary, and to detain a patient against his will detracts from the voluntary nature of the entire procedure. In some states patients may sign agreements to remain in the hospital for as long as 30 to 90 days, but I have been told that such agreements do not stand a court test.

With regard to the legal commitment, the very lack of agreement among the medical profession itself as to ways and means of improving this procedure indicates some of the difficulties faced by those attempting to draft new legislation.

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Trichomonas Urethritis in Males

ECTOR Le DUC, M.D., San Diego

• *Trichomonas urethritis in the male should be suspected in all chronic cases of urethritis. The diagnosis is easily established by the hanging-drop method of examining the urethral discharge, or the first-glass urine specimen. Curative treatment is readily accomplished by the use of urethral instillations of Carbarsone suspension using 1 capsule of Carbarsone per ounce of distilled water.*

CURRENT OPINION that trichomonas urethritis in males is self-limited is in error. Urologists are plagued now and again with cases in which eradication is difficult and symptoms prolonged. That the parasites will spontaneously disappear from the urethra if the man but wear a protective sheath to avoid reinfection during coitus is untenable.

Some 11 years ago the author brought about a cure of trichomonas urethritis in a man by use of a simple method of treatment. Since then the treatment has been used by the author and by other physicians and so far as is known has been curative in all cases. About 20 years ago Carbarsone® (p-carbamino-phenylarsonic acid) was introduced for treatment of amebiasis and it was soon used in suppositories for the local treatment of vaginal infestations of trichomonas vaginalis. In 1944 the author first used a suspension of Carbarsone for treating a man who had trichomonas urethritis. A report of that case follows.

REPORT OF A CASE

The patient, a 40-year-old white man, was seen in New Guinea in 1944 with complaint of urethral discharge of 20 years' duration. He had received all of the usual treatment then in use—prostatic massage, urethral dilatation, instillation of silver compounds and irrigations with permanganate and other solutions. None of these procedures had had even temporary effect on the discharge. Upon microscopic examination of material discharged from the urethra, motile trichomonads were seen and a few of these organisms were noted in a specimen of prostatic fluid.

Urethral instillations of a solution made by adding 250 mg. of Carbarsone to one ounce of sterile distilled water were carried out. With a one-fourth ounce Asepto® syringe, the urethra was comfortably filled with the solution, care being taken to avoid undue pressure, and no attempt was made to force the fluid into the posterior urethra. For a week this treatment was given twice daily, preferably after voiding at bedtime and on arising in the morning and then once daily at bedtime for one more week. The parasites disappeared within 24 hours of the beginning of treatment and none were observed thereafter although careful reexamination of the urine and of prostatic fluid was continued for two or three weeks at regular intervals.

From then on, all male patients observed by the author with urethritis due to trichomonas infestation were treated by that method and in all cases the discharge abated and there was no evidence of parasites on follow-up examination. Several colleagues have used the treatment and so far as is known the results were good except in one case in which chemical urethritis developed.

To prove the disappearance of the parasites, microscopic examination should be made of the centrifuged sediment from the first glass of the standard two-glass or three-glass urine test, and also of the prostatic fluid. An ordinary wet preparation of either is very satisfactory for this study. Special staining methods to demonstrate nonmotile trichomonads have not been used. The microscopic studies are done on specimens taken at each visit at three to four-day intervals. After treatment is discontinued, the visits are spaced at longer intervals until it becomes certain that there will be no recurrences. The sexual partner or partners should be examined or referred for examination and proper treatment, and proper protection to the partner under treatment should be prescribed. Often in the case of extramarital exposure it is necessary only to warn against further exposure.

Although the use of antibiotics has been the mainstay in therapy of urethritis of all varieties, a good deal of time will be wasted and needless expense incurred if antibiotic therapy is carried out in cases of unrecognized trichomonas infestations. In view of the curability of trichomonas urethritis, detailed studies of urethral exudate, regardless of the gross appearance, should be carried out in cases of "nonspecific urethritis," for the diagnosis of trichomona infestation is simple if examination is made for that parasite. Trichomonads have been found in creamy,

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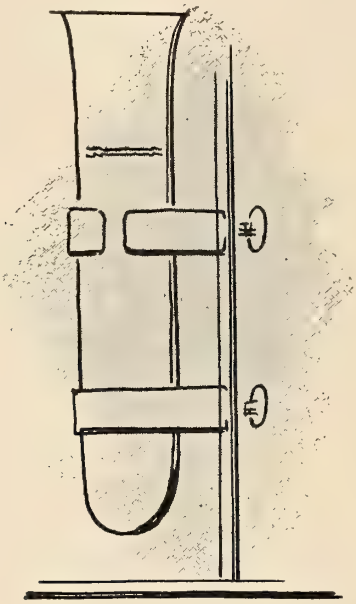
Submitted April 22, 1955.

purulent exudate as well as in the classically described watery or mucoid discharge thought to be characteristic of the disease. A wet smear of the discharge is easily examined with low power magnification on a microscope. If the discharge is scant, a drop of normal saline solution added to the slide is useful. The prostatic fluid and the sediment from the first glass of the two-glass urine test should also be examined. These studies should be in addition to gram stain examination, cultures and sensitivity tests for other organisms. While the number of cases in which trichomonads are present is relatively small compared with other varieties of infection, the definitive response to specific treatment makes the search certainly worthwhile.

2330 First Avenue, San Diego 1.



Mortality Rate from Skin Cancer

EDWARD A. LEVIN, *M.D.*, San Francisco

• Cancer of the glabrous skin (exclusive of cancer of the superficial mucous membranes, melanoma, sarcoma and other rare skin tumors) is a highly curable disease. However, the mortality rate based on United States Public Health Service statistics for the State of California and an analysis of 35 fatalities occurring in 2,122 cases as observed over a 20-year period in the Visible Tumor Clinic at the University of California, is approximately 1.65 per cent to 1.75 per cent.

Skin cancer could theoretically approach a 100 per cent cure rate with two simple rules: Firstly, the patient should seek proper medical advice early for all suspicious growths, moles or warts. Secondly, after an exact diagnosis is made by biopsy, the first treatment given by the physician, whether surgical, chemosurgical, electrosurgical or x-ray, should be complete and adequate, for the first time is the "golden opportunity" for cure.

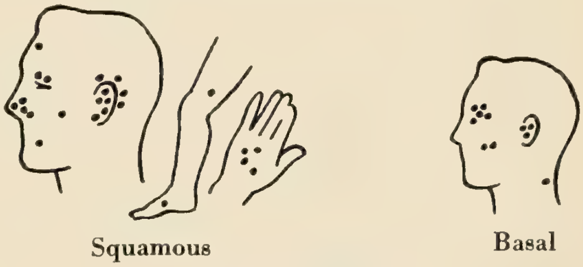
THIS PRESENTATION concerns the mortality rate of carcinoma of the glabrous skin, exclusive of carcinoma of the superficial mucous membranes or melanoma, the cause of death in a series of cases, and how the deaths might have been prevented. Study was made of 2,122 cases of basal and squamous cell carcinoma of the glabrous skin as observed at the Visible Tumor Clinic of the University of California in a 20-year period, 1935 through 1954, and particular analysis was made of the 35 cases (1.65 per cent) in which the patient died of cancer of the skin. Of the 35 who died 27 were males and eight females. Other analytic data are given in Tables 1 to 6.

Data as to incidence of basal and squamous cell carcinoma of the skin for California for 1953 are as yet not available. However, an estimate of the incidence rate for that year is possible based on extrapolation for the data for the year 1947, "Incidence of Cancer in San Francisco and Alameda County" compiled by the U. S. Public Health Service.* To do this, of course, it must be assumed that the San Francisco Bay Area is representative of California as a whole and that the incidence rate for 1953 was the same as in 1947. On these assumptions then, there were 7,400 newly diagnosed cases of skin cancer in California for 1953. Actually reported for 1953 were 130 cases in which the cause of death was carcinoma of the skin excluding carcinoma of the superficial mucous membrane or melanoma. This would give a fatality rate, in relation to the incidence, of approximately 1.75 per cent for the year 1953 for the State of California.

This figure is rather interesting in view of the fact that in the series of 2,122 cases upon which the present study was made the mortality rate was 1.65 per cent. While these figures may not be exact, it can be assumed that for California there is a probability that the mortality rate in relation to the incidence of skin cancer is less than 2 per cent.

One must realize, however, that the cases referred to the University Tumor Board by the various physicians from 20 different counties in California were often complicated by past therapy and at times had progressed so far that cure was not a possibility. This would, of course, reflect in the mortality rate. One cannot but feel that in the next 20-year period, with

TABLE 1.—*Location and types of skin cancers that were primary cause of death.*



	Squamous Total	Squamous Metastasis	Basal	Total
Auricular region	9	6	3	12
Orbital region	2	2	5	7
Nasal region	4	1	0	4
Dorsum of hand	4	4	0	4
Foot	1	1	0	1
Leg	1	1	0	1
Face, multiple	1	0	0	1
Forehead	1	0	0	1
Malar	1	0	2	3
Nape	0	0	1	1
	24	15	11	35

From the Visible Tumor Clinic, Frances Torrey, M.D., Director, and the Department of Dermatology, University of California.

Chairman's address: Presented before the Section on Dermatology & Syphilology at the 84th Annual Session of the California Medical Association, San Francisco, May 1-4, 1955.

*These data were obtained from Lester Breslow, M.D., Chief of the Bureau of Chronic Diseases, and June Browne, Public Health Analyst, California Department of Public Health.

the education of the public and the advances in medicine, this rate will be appreciably reduced. Of course the mortality rate of 1.65 per cent already mentioned may be interpreted in various ways, but whatever interpretation might be gathered from a study of these cases statistically, the fact still remains that 35 of 2,122 patients who had carcinoma of the skin died of that disease.

The statistics from the California State Board of Health are not exact in that when carcinoma of the skin was listed as the primary or contributary cause of death, only melanoma or carcinoma of the superficial mucous membranes were excluded, but other rare conditions such as sarcoma, endothelioma and lymphoma were not excluded. While the number of these rare conditions may be relatively small, nevertheless exclusion of them would to some extent lower the stated figure of 1.75 per cent as the fatality rate of the more common squamous and basal cell type considered in this paper. More exact data than those cited are at present not available. It is hoped that statistical studies in the future may correct this defect.

One can also appreciate that the mortality rate must be much lower in the practice of an experienced dermatologist who often sees small and relatively early lesions, as well as the more extensive ones. Yet there is supposition in this, too, for unfortunately an accurate follow-up of these cases is often not available, and what may seem today's cure may ultimately turn up as a fatality.

Another factor may be that dermatologists, by training and experience in the clinical course of malignant diseases of the skin, refer patients beyond the scope of their treatment to a consultative tumor board or to a surgeon trained in operations on such lesions, or to a radiotherapist for heavily filtered radiation or to a confrere doing chemosurgery. These factors and possibly others might account for the apparently very high cure rate of carcinoma of the skin in cases dealt with by experienced dermatologists.

It is not so easy to state categorically why the 35 patients in the present series died, but many factors and circumstances can be considered. It may be that the patients waited too long before seeking medical care, or refused the treatment indicated, or did not cooperate sufficiently to complete the prescribed course of therapy, or did not report for the necessary follow-up examination after treatment, or that the carcinoma had already progressed to involve vital underlying structures, or had spread, so that the treatment finally given, although heroic, was insufficient. Perhaps the therapy used was inadequate. Perhaps the growth was treated by the physician with an electric needle without biopsy as a benign lesion, or if an epithelioma was suspected, it was inadequately excised (laterally or in depth), or a radium plaque was applied, or x-ray therapy was given without recognition of the size of the field or proper regard to a full cancericidal dose.

There were a few instances, however, in which the duration and size of the growth were such that there seemed to be excellent possibility of cure, but despite large and seemingly sufficient doses of radiation or apparent satisfactory and adequate surgical treatment, the carcinoma continued to progress over the years and at last caused death. These instances might be explained perhaps by the term "radiation resis-

TABLE 2.—*Data on progression of skin cancers that caused death.*

	No. Cases
24 SQUAMOUS CELL TYPE:	
Progressive without evident metastasis	9
Metastasized to regional nodes	15*
11 BASAL CELL TYPE:	
Progressive despite vigorous therapy (no metastasis)	11

*Generalized metastasis in five cases.

TABLE 3.—*Prognosis in 15 cases of metastasis to nodes.*

	No. Cases
Died within one year	11
Died within two years	3
Died within three years	1

NOTE: Three patients (not included in these 35 fatalities) with metastatic nodes alive after five years.

TABLE 4.—*Duration of carcinoma before treatment first sought in 35 fatal cases.*

Years	No. Cases
0 to 2	12
2 to 5	14
6 to 10	6
20 to 25	3

TABLE 5.—*Duration of carcinoma at time of death in 35 cases.*

Years	No. Cases
0 to 5	13
6 to 10	7
11 to 15	5
16 to 20	3
21 to 25	5
26 to 25	1
31 to 35	1

TABLE 6.—*Age at which death occurred in 35 fatal cases of carcinoma of glabrous skin.*

Age	No. Cases
40 to 49	4
50 to 59	1
60 to 69	11
70 to 79	11
80 to 89	6
90 to 99	2

tant," or perhaps despite apparently radical operation, actually it was still inadequate.

CONCLUSIONS

What can be done to reduce the mortality rate of carcinoma of the skin? The answer lies in the education of both the public and physicians.

1. Continuation of the present program of the education of the public to seek medical care early for any suspicious skin growth. As with other types of carcinoma, the earlier the treatment, the greater the possibility of cure.

2. Education of physicians to make an accurate diagnosis by biopsy so that the patient may receive adequate surgical or radiation therapy.

3. Education of physicians to make more use of chemosurgery, where indicated, as the initial treatment, as well as to salvage some of the advanced cases which by previous therapy, location and invasion of the underlying vital facial structures make further surgical and x-ray therapy impossible.

4. Education of physicians to make greater use of the 66 free consultative tumor boards scattered throughout California, since the decision as to the most suitable type of therapy may require the combined knowledge and experience of a consultative tumor board with a pathologist, radiologist, surgeon and dermatologist in attendance.

Skin cancer could theoretically approach a 100 per cent cure rate with two simple rules: Firstly, the patient should seek proper medical advice early for all suspicious growths, moles or warts. Secondly, after an exact diagnosis is made by biopsy, the first treatment given, whether surgical, chemosurgical, electrosurgical or x-ray, should be complete and adequate, for the first time is the "golden opportunity" for cure.

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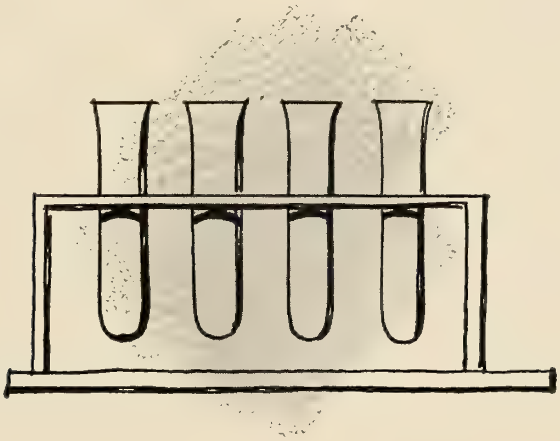

[Special Article]

Personal Injury Litigation

The Duties, Privileges and Responsibilities of Physicians

INGEMAR E. HOBERG, San Francisco

PART I

As society becomes more complex and the frontiers of science keep ever advancing, there has come about an increasing need for and dependence upon the man of science as an expert witness in both civil and criminal actions. A jury is composed of lay persons with little or no scientific knowledge and testimony from the expert is required to assist and guide it in its search for truth. Because approximately 80 per cent of all civil cases reaching the courts involve suits for personal injuries, the physician is the expert witness most frequently employed.

Although most physicians are willing to contribute unselfishly of their knowledge and experience in the unremitting search for truth and justice, as a class they do not relish their involvement in court cases. Some leading medical specialists of this community consistently refuse to treat patients where litigation is, or may be, involved. The reasons for this disposition on the part of a few may vary from unfortunate experiences on the witness stand to the dislike of interruption of routine. Frequently a lack of understanding and appreciation of the lawyer's purpose, the rules of evidence and court room procedure have contributed to this basic distaste.

It is generally conceded that a better understanding and appreciation of the lawyer's problem will enable the physician at least to tolerate his medicolegal responsibilities.

When a physician engages to treat a patient who has been injured through the fault of another, he assumes an obligation not only to restore physical and mental health but to assist in the legal determination of the extent of injury suffered. None but the physician can supply an accurate yardstick with which to measure the amount of recovery. The performance of this duty, morally and ethically, is more compelling than that of the stranger who was an eye-witness when the injury occurred. A failure to accept this responsibility tends to undermine the confidence and trust inherent in the physician-patient relationship, it threatens a miscarriage of justice, and furthers the economic suffering of the patient.

On the other hand, these two great professions have reciprocal obligations to each other. The lawyer is acutely aware that the physician depends for compensation upon the utilization of his time, skill and experience. He should be prepared to compensate him for each interview or medical report or court appearance, in an amount commensurate with the problem and the effort involved. In general, the courts are not profligate with a physician's time and will, to lessen the inconvenience, call him out of the normal order of presentation and at times suitable to his appointments. Rarely is a physician required needlessly to cool his heels in the courtroom corridor; and a corresponding courtesy should be given by the physician to the lawyer, who should not be required to wait long in a physician's reception room.

To understand the differences in attitude of the physician and the lawyer, it must be appreciated that the administration of justice in this country is founded on the adversary system. For this reason the lawyer is necessarily partisan. He is employed for the purpose of furthering the interest of his client and is intent upon gathering together and presenting to the court evidence that is most favorable to his cause. Where legal adversaries are equally industrious, it is expected that all of the facts, both pro and con, will be given to the court or jury. On the other hand, medicine is not a contentious profession and physicians resent being prodded by the lawyer into the position of taking sides. The physician finds himself in trouble on the witness stand more often where he plays the role of a medical advocate. A medical witness should be as objective in his medicolegal attitude as he is in the care and treatment of a patient. By maintaining a strict impartiality and objectivity the physician is best able to resist the tug and pull of opposing counsel, each of whom will endeavor to elicit from him testimony favorable to his side. To the contrary, zeal and persuasiveness are the primary virtues expected of

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a trial attorney and are as essential to his profession as is the scalpel to the surgeon. Only by the exercise of these virtues may a litigant be assured that in the prosecution of his cause no fact will be overlooked and no plausible theory remain undeveloped.

There are very few personal injury actions which may be tried without recourse to the medical expert. Where the judge and jury cannot be presumed to know the future extent and effect of an injury, medical testimony is essential. If the disability is obvious, as in the case of an amputation, such testimony would not be required to show that the injury was permanent and disabling. But where ". . . the injury is subjective and of such a nature that a layman cannot, with reasonable certainty, know whether or not there will be future pain and suffering, then in order to . . . authorize a verdict for future pain and suffering there must be offered evidence by expert witnesses who can testify that the plaintiff, with reasonable certainty, may be expected to experience future pain."[1]

Before a medical witness is allowed to testify, it must first be established that he is a qualified expert. The attorney putting the physician on the stand ordinarily will lay a foundation as to his qualifications; that is, he will ask questions calculated to disclose the witness' education, knowledge, skill and experience in the particular field of expected testimony. The opposing attorney is given an opportunity to cross-question the physician as to his qualifications in an attempt to challenge or lessen the weight to be given to his testimony. The final determination as to whether an expert is qualified lies within the broad discretion vested by law in the judge.

Medical testimony is usually of two kinds: The *facts* that are known to the physician and his expert *opinion* based upon such facts. Facts usually consist of history, complaints or symptoms, and the physician's physical findings. The expert opinion involves the physician's conclusion, his diagnosis and prognosis; or it may include other conclusions, such as whether a wound was caused by a cut or gunshot.

One of the major difficulties confronting the medical practitioner when testifying is his inability to answer categorically "yes" or "no" to a medical question. Very few medical opinions can be expressed with certainty or even with reasonable probability. At the same time the Civil Code of the State of California, Section 3283, requires that detriment must be "certain to result" before damages can be awarded for future pain or disability. The courts have recognized the fact that the medical expert can rarely state with certainty the future results of an injury and have reconciled the difficulty by permitting him to express his opinion as to future pain or disability in terms of "reasonable probability" or even "possibility."[2] However, the test for the jury, or fact-finder, still remains that of "reasonable certainty" and the physician's testimony can be used as evidence thereof.

We are frequently reminded that medicine is not an exact science and, accordingly, it is within common knowledge that unanimity of opinion among physicians is seldom expected. A California case[3] illustrates an early recognition of this fact. The record in that case describes the injury as follows:

> . . . Mrs. Doolin fell on the floor of the car and sustained, besides some minor hurts, a concussion of the spine, which drew after it a train of evil consequences, such as great nervous debility, incompetence to walk without assistance, retention of urine, incoherence of speech, impaired vision, impaired memory, sleeplessness, hysterical and other effects, all of which, her counsel claimed, rendered her a physical wreck and seriously impaired her mind and memory.

Six physicians made a complete physical check-up, three acting at the instance of defendant and three on behalf of the plaintiffs. Several physicians for both sides testified that the patient had either a uterine or an ovarian tumor—then about the size of a coconut. The family physician testified that the tumor had grown four times in size by the time of the trial. Most of the physicians were of the opinion that a concussion of the spine would not produce the tumor. There was some evidence showing that Mrs. Doolin had no early signs of injury and then she had stated that she had only been frightened and made a little nervous. The plaintiffs obtained a verdict in the sum of $20,000. At the hearing of the motion for a new trial, both sides admitted that ten days after the trial Mrs. Doolin had given birth to a child at full term, and had not been affected with a tumor at all. The court made this interesting comment:

> It must be remembered in this connection that some of the expert testimony for plaintiffs tended to attribute the supposed tumor itself to the shock of the accident. Since the time of Mr. Pope it has been often inquired, "Who shall decide when doctors disagree?" The case at bar shows that gross error may lurk in their conclusions even when they have agreed; by which we mean no reflection upon the learned and very important profession of which the expert witnesses at the trial seemed to have been respectable members, for all opinion evidence is from its nature fallible to a degree beyond that of most other kinds of evidence which the law deems competent.

It may appear to a physician that the technical requirements of the law, and the interjection of objections by the attorneys regarding the admission of evidence, may tend to obscure, rather than to reveal, the truth.

In former years the physician witness frequently would be asked long-winded, hypothetical questions.

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[1] Oliviera *v.* Warren, 24 Cal. App. (2d) 712.

[2] Hagg *v.* Allied Chemical & Dye Corp., 122 Cal. App. (2d) 361; Bauman *v.* San Francisco, 42 Cal. App. (2d) 144, 163.

[3] Doolin *v.* Omnibus Cable Co., 125 Cal. 141

These questions assumed the truth of a multitude of facts that had been established in evidence during the trial. Hypothetical questions are seldom advisable and rarely required today. Physicians are now permitted to recite the history obtained by them from the patient, even though the facts recited have not first been put in evidence, provided such history forms some basis for the physician's opinion. For example, the fact that the patient had a headache at a certain time could be known only by the patient. The recitation of such fact by another is called "hearsay" and ordinarily is inadmissible. This history given to the doctor is admissible, not as evidence of the truth of the facts given in the history, but only for the purpose of showing the basis upon which the physician founds an opinion.[4]

No rigid rules bind the physician to accept or reject the history of his patient, whatever the source of his information. But the very skill of the physician will cause him to sense and reject such portions of the history as may seem untrustworthy. On the other hand, the triers of fact in a lawsuit are not highly skilled in rejecting hearsay and conjecture. Arbitrary rules are therefore essential in the law in order that there may be screened from the jury's consideration such information as the experience of mankind has shown to be untrustworthy. It is here that the physician should learn to understand the necessity for seemingly harsh limitations bearing upon the admissibility of evidence.

Frequently, too, the physician will find a rigorous cross-examination by the opposing attorney to be a distressing experience. A liberal cross-examination is but another means provided in the law to insure that testimony given by a witness is accurate, credible and trustworthy. It is another phase of our adversary system, by which deficiencies, suppressions or sources of error which may lie underneath the testimony may be exposed. The cross-examiner may be vitriolic and rough or gentle and suave, but his purpose is the same in all cases—to probe into and discredit if he can such testimony as may be adverse to his client's interests. He must fail in his efforts, however, if the witness has a thorough knowledge of the facts, remains calm and avoids overstatement. By remaining impartial and objective, the physician may confidently meet with the cross-examiner on safe ground, and leave the witness-stand with a sense of accomplishment rather than of relief.

Fees, Costs and Risks of the Average Personal Injury Lawyer

Almost all personal injury claims are handled by the plaintiff's lawyer on a contingency basis. He is paid a fee for his services only if he is successful in obtaining a recovery for the injured person. In most cases, the claimant's lawyer agrees to advance, subject to eventual reimbursement, whatever costs are necessary for the prosecution of the action. These costs come off the top of any recovery and before the attorney's fee (usually ranging from 20 per cent to 40 per cent of the net recovery) is computed. Among the proper costs that may be advanced by the attorney are the medicolegal fees of the medical witnesses. Medicolegal fees are those charges incurred by the lawyer for special medical reports, physician-lawyer consultations, testimony or other services required in the interests of the lawsuit and not required in the care and treatment of the patient. A physician should charge, and the lawyer should be prepared to pay, a reasonable fee for each physician-lawyer consultation; for the preparation of a specially requested medicolegal written report; for the time consumed in medical research or other preparation for court testimony where such knowledge is required for court purposes and is not that with which the physician might ordinarily be expected to be familiar; and for the time consumed at the request of the lawyer in examining additional x-ray films, reviewing reports of other physicians and of hospital records.

If the case is lost, no fees are payable to the lawyer. Furthermore, if the client is improvident, then the costs advanced on his behalf may also be lost to the lawyer advancing them. This means that many months and frequently years of time spent on a case, including both trial and appeals to higher courts, may go uncompensated. Not infrequently, expenditures for such costs, averaging from several hundred to several thousand dollars, must be written off. Thus the seemingly high fees in the contingent contract are not always a bargain to the lawyer. Physicians have sometimes expressed annoyance that the lawyer may receive, for less apparent effort, much more in fees than the physicians get. But these physicians have not realized that all cases are not won, and that the medical fee is intended to be certain, albeit collection is not always assured.

Doctor-Lawyer Consultations, Medicolegal Reports, And Testimony at Depositions and Trials

There is no legal obligation imposed upon the physician to consult with the attorney of his patient concerning the latter's injuries. Neither does the law require that a medical report be made to such attorney. The duty to do so is a moral one, and requires such cooperation and assistance as may be necessary to enable the patient to obtain proper redress for the injury. As a practical matter, in all but very few cases, physicians will consult with attorneys and will render reports concerning the patient's condition. This is the alternative to the legal obligation imposable upon a physician through the service upon him of a subpoena. A subpoena would require him to attend a meeting for the making of deposition and there to reveal the facts of the case. Resort to this procedure is time-consuming and disruptive.

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[4] Groat *v.* Walkup Co., 14 Cal. App. (2d) 350.

Frequently the attorney opposing the patient's claims may wish before trial to examine the patient's physician concerning the extent of his injuries and future disability. This interrogation, under oath, called a deposition, may only be compelled by means of a formal subpoena—a court order—personally served upon the physician. Such orders can be sternly enforced and it is obvious that a physician having a valid reason for nonattendance at the meeting for deposition should make his situation known to the attorney who obtained the subpoena. Illness, absence from the state, or preoccupation with operating schedules are almost invariably accepted by the attorney as valid reasons for deferment. Should the appeal to the attorneys fail, the doctor may make direct appeal to the judge of the court for relief. Seldom does a reasonable request for relief pass unheeded.

When a subpoena compelling attendance at a meeting for deposition is served, it usually means that the physician will be interrogated by and in the office of one of the attorneys. Counsel for both plaintiff and defendant are present. This is one of the forms for pretrial discovery intended to prevent the surprise of unexpected medical testimony during the trial. Depositions may also be taken to preserve the testimony of the physician should he expect to be out of the jurisdiction of the court at the time of the trial.

Depositions are not taken in the presence of the court. A shorthand reporter is in attendance, just as in the courtroom, and testimony is taken under oath. The questions and answers are later transcribed into book form for filing with the court.

Ordinarily, the attorney for the plaintiff tries to avoid having a physician for his client give testimony before the beginning of the trial, because it tends to expose any weakness in the medical case to a more searching examination or investigation, and it doubles the labor involved. This doubling of effort also affects the medical witness who must twice collect his records and his wits—once in preparation for the deposition, and once again in preparation for his trial testimony.

Some helpful hints to the doctor faced with a deposition may be set down here.

1. While the place for the deposition is usually a lawyer's office, it is often possible for the physician to persuade the lawyer responsible for the subpoena to have the place changed from the law office to the physician's office. This change should facilitate the production of the medical records and afford the least inconvenience and loss of time to the physician and his waiting patients. It usually helps the physician to be at greater ease while testifying in the environment of his own office. Seldom is such a request refused.

2. The time of day for the taking of a deposition may, in most cases, be changed to a time mutually convenient to the physician and the lawyers. Each of the lawyers will look forward to receiving from the physician unbiased but helpful testimony. At this hopeful stage, they tend to be ingratiating rather than hostile, and are inclined to extend themselves to the utmost to be accommodating.

3. If the physician is called upon for deposition to be taken by the attorney representing his patient, he must look to him, or to the patient, for his compensation. If the adversary attorney should serve the doctor with a subpoena to attend a meeting for deposition, he is under no obligation to pay any fee other than the statutory witness fee of two dollars. However, attorneys representing an insurance company customarily agree to compensate the plaintiff's physician in a reasonable sum, usually fifty dollars, for the time consumed at the meeting for deposition. If the attorney for an insurance company expresses a nonwillingness to pay for the physician's time, the attorney for the physician's patient may be willing to do so, even though no legal or moral obligation exists.

4. The physician witness should consult with the attorney for his patient a short time before the deposition is to be taken. In this way he may learn the purpose and scope of the deposition. It will also allow the attorney opportunity to pre-examine the medical records. If the records were not subpoenaed (to do so requires a special subpoena—*duces tecum)* or if the subpoena requiring their production was legally improper, the attorney may advise the physician accordingly.

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[***This is Part I of an article in two parts. Part II will appear in a subsequent issue of California Medicine.***]

CASE REPORTS

Relapsing Pneumococcic Meningitis

Report of a Case

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A CASE in which there were ten relapsing attacks of meningitis proved due to pneumococcus on eight occasions and the cause not proved in two instances—is presented. Included are probable examples both of recurrent and relapsing attacks.

A review of the literature concerning recurrent meningitis recently was presented by Tribiano.[1] He noted that since 1937 there have been 25 papers dealing with recurrent meningitis, and that many of the cases reported were relapse rather than recurrence. In the case here presented, it is not clear how many of the attacks represent new infections, since typing of the pneumococci was performed but once, on the first admission.

REPORT OF A CASE

The patient, a 12-year-old negro boy, was born at the Los Angeles County General Hospital, February 8, 1941. Birth was at term, was spontaneous and without trauma or complication. The patient is congenitally deaf. Early growth and development were normal except for failure to develop articulate speech. A left inguinal herniorrhaphy was done when the patient was one year of age. He had varicella at two years and rubeola at three. Subsequent admissions to the hospital are discussed below.

First Admission. On July 22, 1944, at three years of age, the patient was admitted to the hospital because of a perforating laceration of the left side of the neck which extended into the left tonsil and palate, following injury with a splinter of plate glass. Treatment consisted of debridement and closure of the wound, administration of sulfadiazine and blood transfusion. The child was discharged in six days.

Second Admission. December 16, 1944, five months later, the child was admitted to the Communicable Disease Unit with a history of lethargy, drowsiness and fever for four days. He had been treated at home for three days with a sulfonamide.

On admission the temperature was 103.6° F., the pulse rate 128, and respirations 30 per minute. There were pronounced signs of meningeal irritation. The child was stuporous and there was evidence of dehydration. The ears, nose and throat were normal. Coarse rhonchi and a few fine rales were heard in both lower lung fields posteriorly and in the right mid-lung field anteriorly.

Examination of the spinal fluid revealed 222 white blood cells per cu. mm., 194 of which were polymorphonuclear. The Pandy reaction was 1-plus. A stained smear of the spinal fluid showed many gram-positive diplococci, and pneumococcus type 23, grew on culture of the material. The hemoglobin was 7.0 gm. per 100 cc. and the peripheral blood contained 26,000 leukocytes per cu. mm.—88 per cent polymorphonuclear cells.

Treatment was instituted with supportive measures, blood transfusion, parenteral fluids, sulfamerazine and penicillin. The sulfamerazine was at first administered parenterally and later orally. This drug was continued for a total of 23 days. Penicillin was continued for 15 days. The clinical condition of the patient improved gradually, and within a week the temperature had returned to normal and the spinal fluid cell content had fallen. There were occasional days of fever later in the hospital stay, however; and once the temperature rose to 103° F. This was attributed to an infection of the upper respiratory tract and sulfadiazine was given for ten days. The child was discharged on February 3, 49 days after admission.

Third Admission. Three weeks later the child was readmitted with a history of right rhinorrhea for two weeks and cough and fever for one day. He was an acutely ill child. The temperature of 101° F., the pulse rate 90 and respirations 34 per minute. The vessels in both tympanic membranes were slightly engorged and the tonsils were enlarged. Upon examination of the chest, dullness was noted over the left lower lobe and the right upper lobe, and coarse rhonchi and medium rales were heard throughout the lung fields. An x-ray film of the chest was reported as showing "accentuation of the right

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Submitted July 5, 1955.

basal bronchovascular markings with an indefinite area of infiltration underlying the right fifth rib anteriorly, consistent with pneumonia." Treated with sulfadiazine, the patient recovered promptly and was discharged in five days.

Admissions Elsewhere. Between December 5, 1945, and December 14, 1951, this child was treated at the Unit II of the Los Angeles County General Hospital on numerous occasions, and was admitted 15 times. The pertinent details of these admissions are summarized below.

Of the 15 hospitalizations, 11 were for episodes of meningitis. Eight times the diagnosis of meningitis was established by examination of the spinal fluid. In the other two instances the spinal fluid was sterile. On three occasions the diagnosis of meningitis was suspected because of fever, headache, lethargy and signs of meningeal irritation, but was not established by spinal fluid examination. Each attack of meningitis was treated with penicillin and a sulfonamide, the duration of treatment varying from nine days to 53 days.

There were two admissions for bronchopneumonia and one for right otitis media. Simple right mastoidectomy was done in March, 1946; tonsillectomy and adenoidectomy and right maxillary antrotomy were done in October, 1946. Pneumoencephalography done in December, 1945, was interpreted as demonstrating "changes consistent with an early communicating internal hydrocephalus." The last episode of proved pneumococcic meningitis prior to the occasion described in following paragraphs was in October, 1950, some six years after the initial admission.

Latest Admission. On June 12, 1953, the patient, then 12 years of age, was admitted to the Communicable Disease Unit of the Los Angeles County General Hospital with complaints of headache, vomiting and fever of sudden onset less than 24 hours before admission. There was a history of recent drainage from the right ear.

Upon physical examination it was noted that the patient was acutely ill and somnolent. He was well developed, well nourished and muscular, partially deaf and inarticulate. The temperature was 103.8° F., the pulse rate 100 and respirations 24 per minute. The right tympanic membrane was retracted and had a small perforation in the posterosuperior quadrant, but there was no drainage. There was a surgical scar posterior to the right ear. Signs of meningeal irritation were pronounced. The lung fields were clear.

The spinal fluid on the day of admission had a ground glass appearance and contained 4,000 leukocytes per cu. mm.—95 per cent polymorphonuclear. Pneumococci grew on cultures of spinal fluid and blood. The hemoglobin was 11.5 gm. per 100 cc. and leukocytes numbered 21,550 per cu. mm.—95 per cent polymorphonuclear cells.

Treatment was begun with penicillin and chloramphenicol intravenously and sulfisomidine subcutaneously. As the patient's clinical condition improved, penicillin was given intramuscularly and chloramphenicol and sulfisomidine orally. Penicillin was continued for 15 days, and sulfisomidine and chloramphenicol for 33 days. Examination of the spinal fluid the day following admission showed 558 leukocytes per cu. mm.—80 per cent polymorphonuclear cells. A culture of the fluid was sterile. Subsequent attempts to examine the spinal fluid were unsuccessful, owing to inability to perform lumbar puncture without general anesthesia. The patient became afebrile on the fifth hospital day and remained afebrile and clinically well thereafter.

No abnormalities were noted in x-ray films of the chest, abdomen, spine, soft tissues of the neck and the skull. Roentgenographic studies of the temporal bones were normal except that "the right mastoid cells are sclerotic; there is an area of decreased density most consistent with an old surgical defect and old right mastoiditis." In x-ray films of the paranasal sinuses, "slight haze over the upper anterior ethmoids" was noted.

Electroencephalograms were normal.

An otologic consultant rendered the opinion that a focus of infection should be suspected in the right ear, this being one of the commonest demonstrated causes, but that operation was not immediately indicated in view of the clean right simple mastoidectomy cavity.

DISCUSSION

Although pneumococcic meningitis is well known for its tendency to relapse and recur, ten attacks with recovery is rare, particularly in a child. In most reported similar cases the patients were adults.

The exact cause of the frequent relapsing attacks in the case of the child here reported was not established. However, there was ample evidence of recurrent respiratory tract infection with associated mastoiditis and sinusitis in the past history. It is likely that there was a persistent focus of latent infection in the right ear. Other frequently implicated causes of relapsing attacks of meningitis, such as skull fracture or congenital dermal sinus having continuity with the meninges, were not demonstrated.

SUMMARY

A case of a 12-year-old negro boy who survived ten attacks of purulent meningitis in nine years is presented. In addition to the ten proved attacks, there were three additional probable episodes. On eight occasions pneumococci were isolated from the spinal fluid. Twice the spinal fluid was sterile.

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REFERENCE

1. Tribiano, C. W.: Four recurrent attacks of pneumococcic meningitis with recovery, J. Pediat., 42:609, May 1953.

Torsion Patterns of Chordae Tendineae in Rupture of Papillary Muscle

Review of the Literature; Report of a Case

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CARDIAC RUPTURE has probably been known since the beginning of medical literature. As the study of pathological anatomy developed, however, descriptions of rupture involving only special structures of the heart appeared. Rupture of a papillary muscle was first reported by Mérat[20] in 1803. In the century that followed, however, only six additional cases were recorded, and one of the first reviews of this condition, by Voigt[28] in 1932, included only nine cases, although additional ones were then on record. The first comprehensive review of this cardiac catastrophe was prepared by Stevenson and Turner in 1935.[27] They collected reports of 19 cases and added one of their own. Reviews by other investigators[1, 3, 5, 25] since that time have established a fairly characteristic clinical picture, and the antemortem diagnosis of ruptured papillary muscle was definitely made on four occasions,[1, 3, 5, 25] and suggested on another.[1] Not all the reported cases were included in any of these reviews, however, and an exhaustive search has shown that a total of 56 examples of ruptured papillary muscle are now listed in the world medical literature.[1-3, 5-8, 10–13, 15–21, 23–29] The case here presented is the fifty-seventh. An additional instance of papillary muscle rupture terminally in the course of acute disseminated lupus erythematosus is as yet unpublished.[4]

REPORT OF A CASE

A 78-year-old Caucasian man, was admitted to the Glendale Sanitarium and Hospital at 12:25 p. m., October 2, 1954. He was apparently in shock, had cold skin, and was perspiring profusely; no peripheral pulse or blood pressure was obtainable.

A daughter-in-law, who accompanied the patient to the hospital, stated that about an hour earlier he was in the living room watching the world series baseball game on television (fourth and final game) when she suddenly was aware that the set was no longer on. She went into the room, found the television set turned off, and the patient on the floor, pulseless, with Cheyne-Stokes respiration, and unconscious. He had been having frequent anginal pains the previous week, and was known to have arteriosclerotic cardiovascular disease with coronary insufficiency and arteriosclerosis obliterans of the lower extremities.

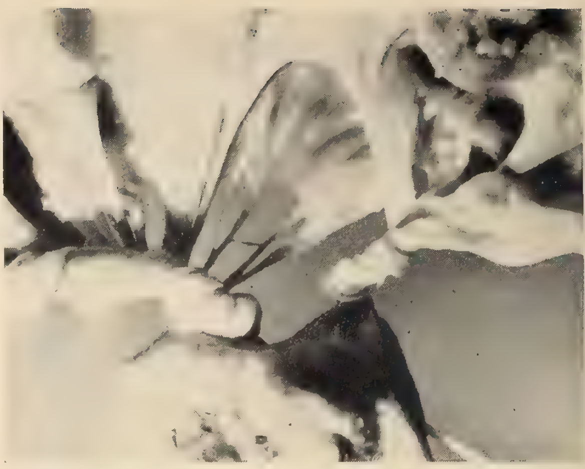

Figure 1.—Inferior surface of anterior commissure of mitral valve, showing double spiral twisting of chordae attached to necrotic avulsed papillary tip.

The attending physician, who saw the patient at his home, gave him 8.0 mg. ($\frac{1}{8}$ gr.) of morphine sulfate and sent him to the hospital by ambulance. An additional 8.0 mg. of morphine sulfate and 2 cc. of levophed in saline solution were given at once. About 45 minutes later the blood pressure was barely perceptible at 45/0 mm. of mercury. Heart tones were strong and regular at 96 per minute. About this time a peculiar cyanotic mottling was noted below the level of the sixth and seventh ribs. The condition of the patient deteriorated rapidly, and about an hour and a half after admission the respiration and heart tones again became irregular. An electrocardiogram showed auricular fibrillation and lateral ischemia. Breathing became labored and the patient died at 3:05 p. m., about three and a half hours after onset of acute symptoms. No laboratory studies were completed before death.

At autopsy the heart was observed to be enlarged, weighing 540 grams. There was left ventricular hypertrophy and dilation. The atria, the right ventricle and the valves (except the mitral) appeared normal. Cut surfaces of the myocardium showed areas of red-brown mottling in the anterior and lateral left ventricle deep to the site of attachment of the anterior papillary muscle. This muscle was ruptured in its midsection. The anterior half of the mitral valve was distorted by torsion of the chordae tendineae, which had been twisted on themselves by the tip of the anterior papillary muscle to which they were attached (Figure 1). This phenomenon was made possible by the infarction of the midsection of the papillary muscle with consequent avulsion of the tip by the mechanical trauma of cardiac contraction; this papillary tip was then apparently repeatedly thrown backward, upward, over and forward through the chordae tendineae at the anterior commissure until, after three complete revolutions, the chordae were twisted into two thick, tightly wound spirals functionally incapacitating the mitral valve so that it could neither completely open nor completely close. The lungs were moderately con-

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gested and edematous. Together they weighed 1,160 gm. Other observations were not significant.

DISCUSSION

The odd twisting of the chordae tendineae noted at autopsy in this case led to curiosity as to what mechanism might have brought it about. From a purely mechanical point of view it is apparent that two axes of rotation are possible for a fragmented tip of a papillary muscle supported by the chordae tendineae—namely, vertical rotation around the long axis of the chordae tendineae, and rotation around an axis parallel to the valve margin. In the present case the axis of rotation was the latter, and at right angles to the axis of the chordae tendineae, like the twisting arms of a gymnast "skinning the cat," or the action of a turnbuckle. Incidentally, in subsequent study of artificially produced torsion it seemed that three complete revolutions was the greatest number of turns possible. The direction of rotation was then studied and, as described in the autopsy protocol, it was seen that this rotation was backward and upward, then forward through the chordae tendineae, and down, producing the distortion as shown. Such twisting could only be produced by the "drag" of the flowing blood on the papillary fragment. After diastolic filling of the left ventricle, the direction of blood flow during systole is away from the mitral axis and upward toward the aorta, carrying the papillary fragment to a position beneath and behind the mitral valve, the end phase of systole forcing it through the chordae at the commissure into the mitral orifice, there to be caught by the diastolic inflow, and brought forward and downward to complete the revolution. The literature was reviewed to confirm or deny this concept.

Several of the early investigators noted a queer twisting of the chordae tendineae[6, 7, 16, 28, 29] but did not accurately record the direction of twisting, or attach significance to the phenomenon or attempt to explain it. Later investigators provided photographic illustrations, and in instances where these are sufficiently clear, characteristic double spiral twisting is frequently shown, identical to that seen in the specimen in the present case.[3, 14, 18, 19, 26] In other studies similar twisting was more or less clearly identifiable by description.[1 (Case 2), 3, 12, 24] In Askey's report, the photograph in Case 6 appears to show a half twist in opposite rotation, but the orientation of the photograph is not entirely clear. Vertical twisting was definitely described in only one instance (Askey, Case 1). The 56 previously reported cases and the one herein described can therefore be classified as follows:

Characteristic double spiral twisting	6
Reverse double spiral twisting (?)	1
Double spiral twisting, direction of rotation not stated	8
Vertical twisting	1
Twisting, type not identified	2
No information available	2
Twisting not present, or not mentioned	32
Incomplete papillary rupture	5
Total	57

The anatomy of the papillary muscles varies considerably, and in many cases is such that these torsion patterns cannot be produced. This undoubtedly explains the absence of twisting in so many instances.

Duration of life after rupture of a papillary muscle is usually a matter of hours, but a few cases in which the patient lived for some time are recorded. Although the interval before death is somewhat less in cases with torsion of the chordae tendineae, the difference is not significant. In the normal heart both papillary muscles have chordae tendineae connected with the respective half of each mitral cusp.[20] Therefore, in single papillary rupture there is only partial incompetence of both cusps, rather than complete functional loss of one cusp. This partial functional loss is not so severe as might be expected, owing to the support given to the loose cusp halves by the remaining intact papillary muscle and its chordae tendineae. However, when the blood flow brings about the torsion described, the chordae tendineae roll together in turnbuckle fashion, tightly drawing the cusps together, at the same time preventing complete closure. The result is mitral stenosis with fixation and incompetence, severe pulmonary congestion and edema, and systemic anoxia.

SUMMARY

A case of rupture of a papillary muscle is reported and reports of 56 cases in the world literature are reviewed. In 18 of these 57 cases (32 per cent), there was twisting of the chordae tendineae of the avulsed papillary tip. In the case here reported and in five others in the literature, the torsion pattern was a double reciprocal spiral with a characteristic direction of revolution so that the upward arc was through the commissure and the downward arc was through the central region of the mitral orifice. In ten additional instances the torsion patterns were probably identical, but not completely documented in this respect. In two other cases there were unusual torsion patterns—one around the same axis but possibly in reverse rotation, the other apparently around a vertical axis.

This apparent consistency in torsion pattern seems to provide an additional facet of interest in the study of papillary rupture. Some degree of clinical significance is also suggested, in view of the probable aggravation of the mitral deformity and dysfunction by this peculiar mechanism.

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Intercostal Arteriovenous Fistula Following Transthoracic Retroperitoneal Thoracolumbar Sympatheticoganglionectomy

N. PETER PLECHAS, M.D., Long Beach

IN A BRIEF SEARCH of the literature no recent report could be found of intercostal arteriovenous fistula following transthoracic procedures or rib fractures.

CASE REPORT

The patient, a woman 45 years of age, had bilateral, two-stage transthoracic transpleural retroperitoneal sympatheticoganglionectomy involving the third thoracic through the first lumbar ganglia including the greater, lesser and least splanchnic nerves, and half of the coeliac ganglion on each side (Shumaker procedure). The kidneys and the adrenal glands were inspected bilaterally. The approach used on both sides was resection of the eighth rib and surgical fracture of the neck of the ninth rib. This procedure was done for a chronic, progressive, cerebral type of hypertension of five years' duration.

The first stage was done October 23, 1954, on the left side, and the patient recovered in the usual time of eight days. Operation on the other side was done December 1, 1954. The patient again made rapid recovery, had a decrease in blood pressure and was given neosynephrine drip for 48 hours. The pressure response was gradual. She left the hospital on the tenth day.

On the fourteenth day, pain developed in the right lateral abdominal wall over the distribution of the ninth intercostal nerve. Severe and stabbing in nature, the pain was different from that previously felt after operation. On physical examination, no additional abnormalities were noted except a continuous to and fro bruit heard over the costal-vertebral angle in the region of the fractured ninth rib.

The sound was loud and radiated superiorly for approximately 6 inches, gradually diminishing in intensity. The bruit continued with a great deal of intensity laterally over the chest almost to the sternum, where again it diminished in volume. The pulse was regular and the rate was 85, with positional variations such as are associated with postural hypotension associated with sympathectomy. The blood pressure was 140/90 mm. when the patient was supine, 100/70 mm. when sitting and varying between 80/30 mm. and 90/40 mm. when standing. At first the patient had some ringing in the ears from these changes in position, but eventually noted no bad effects and was able to be ambulatory. On the basis of the foregoing observations a diagnosis of intercostal arteriovenous fistula was made. The heart rate was somewhat accelerated following the development of the fistula, and the cardiac pulsations in the neck seemed to be more prominent.

Upon general examination it was noted that the patient was well developed and well nourished. The body weight was 180 pounds and the height

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Submitted June 10, 1955.

5 feet 7 inches. Ophthalmoscopic examination was done and some healed scarred areas in the right retinal fields and a Grade I Smithwick change in the eye grounds were observed.

The chest was symmetrical and cardiac sounds were normal. There was no impairment in resonance. The heart was slightly enlarged to the left. Bruit sounds as previously described were noted.

Erythrocytes numbered 4,500,000 per cu. mm., and leukocytes—78 per cent polymorphonuclear cells, 30 per cent lymphocytes, 1 per cent monocytes and eosinophils and 1 per cent basophils.

OPERATIVE PROCEDURE

On December 14, 1954, after intubation was carried out, combined Pentothal-Anectine and oxygen was used for anesthesia and the patient was placed in the left lateral decubitus position. The old incision was opened in the region of the eighth interspace. There were adhesions of the lung over the pleura at the incision line. The adhesions were carefully separated, but when the region of the fistula was reached, active intercostal bleeding was encountered. Bleeding was controlled by digital pressure, and the neurovascular bundle was then dissected free, both proximally and distally, and was ligated with silk. No continuous hum or bruit could be heard following the ligation. The chest was closed in layers with a No. 34 mushroom catheter placed in the tenth intercostal space. Convalescence during the postoperative phase was good.

DISCUSSION

An arteriovenous fistula was suspected because of the to and fro nature of the bruit. The type of fixation for the surgical fracture of the rib consisted of an intramedullary bone splint about an inch long and 3 or 4 mm. in diameter. It fitted the medullary cavity of the rib edges snugly. The chest was closed in the usual way. Water trap drainage was in effect for three days.

A roentgenogram of the chest before discharge showed the rib edges approximated. Four days later, the x-ray films showed the rib fracture had separated at the ninth rib.

There are many techniques for making a thoracic incision. A rib can be resected and a rib fractured either superiorly or inferiorly. Or, without resection of a rib, an intercostal incision may be made and the ligaments at the rib facets and the transverse processes divided. This permits wide swing of the rib. Reparative fixation of the fractured rib to the adjacent rib can be done, using catgut or wire sutures to bind it to the undamaged rib, or it can be fixed with an intramedullary peg. Drilling the ends of the rib and wiring them together also can be used.

It has always seemed to the author that stabilizing the fracture is only a temporary expedient in order to obtain better mobility of the chest in the early postoperative period, and that any separation of the fracture heals well with no vascular complications such as that which occurred in this case.

This particular complication was probably produced in the present case by a dorsal slippage and proximal dislocation of the distal segment of the rib. (The medullary peg still remained in position in the distal fragment.) Then, the proximal edge of the rib fragment still being rough, it probably eroded into the artery and vein as the neurovascular intercostal bundle was pushed against it.

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EDITORIAL

Creeping, Creeping . . .

AMERICAN MEDICINE today finds itself in the uncomfortable position of leading a battle with no supporting troops in the rear.

The battleground—Social Security.

Ever since the original Social Security law was enacted in 1935, medicine has been under the legislative gun. For the past twenty years there have been those in government who would take over the practice of medicine as a federal function. Their theory is based upon the experience in European countries and on the politically tenable theme of "the ultimate good for the most people." Medicine has been relegated, by these proponents, to the category of a public utility which cannot be allowed to operate unhampered but must be brought under governmental control if the people are to benefit from a service which, simultaneously, demands great knowledge and contains all the elements of a daily necessity.

Right now, during the recess of the Congress, medicine, the legislators and the people have the opportunity to consider anew the question: How far should Social Security go? Has this theory been given full consideration so far or does it need further study, further extension?

The case in point is a bill presented in the first part of the present Congressional session, HR 7225.

This measure came into the Congress from a committee which admittedly had not held public hearings on its provisions during this session of Congress. It then passed to another committee in the House of Representatives, which also decided that public hearings were not needed but that it should be brought out for a vote on the floor of the House of Representatives. This was voted, under a rule which forbade any amendments to the measure and limited total debate to forty minutes. As an omnibus measure, including points which no Congressman could deny as to public support, HR 7225 breezed through the House on a vote of 372 to 31. Many Congressmen admitted their opposition to many of the features of the bill but felt they must vote for the overall measure as a political expedient.

Reverting to the original Social Security measure of 1935, it is well recognized that the bill went through the Congress as a double-barrelled measure which would simultaneously provide a federal subsidy for those who were unemployed and too old to secure further employment and also remove these older people from the competition of the general labor market. While the benefits originally set forth may seem pretty innocent today, by the depression standards of 1935 they did well in taking care of a portion of the older population.

Since enactment of the foot-in-the-door bill in 1935, the Social Security Act has been subjected to many amendments. Up to 1937 the employed person covered by this legislation paid 1 per cent of his annual wages, *up to a $3,000 wage maximum*, in the form of "contributions" to the Social Security Fund. (Semantically, "contributions" may easily be defined as "taxes," since the individual was forced to pay them.) Next came a boost in the "contribution" rate to 1.5 per cent, then a rise in the maximum wages to $3,600. Then further increases, to bring today's "contribution" to 2 per cent on wages up to $4,200 a year. Further increases have been proposed, up to a maximum of 6 per cent on $6,000 paid by employer and employee alike and 9 per cent on $6,000 paid by the self-employed.

Physicians have, so far, maintained themselves outside the class of self-employed individuals now included in the law. The professions of law and dentistry at first sided with medicine in this move but later gave in and consented to being included as self-employed beneficiaries of this law.

In 1950, the Congress adopted further amendments, to provide for the "freezing" of "contributions" during periods of disability. While this amendment was at first passed along with another amendment which made it, for a time, ineffective, later a Republican majority put it firmly into effect. Physicians were inched further into the federal control of medical practice by being put under regulations to govern their certification of the disability of claimants. For more than a year, physicians throughout the country have been following federal regulations in this field of their practice.

Now comes HR 7225, a bill which will further extend the disability provisions of the present law, will reduce the minimum benefit age for women under the Social Security Act and will include additional groups of self-employed persons (but not physicians) under the terms of the law. Further opportunity for governmental dictation to the medical profession is once more offered. The sections of the proposed law dealing with the totally and permanently disabled, those dealing with medical certification, again give Washington the chance to tell you, doctor, how you shall or shall not determine human disability. And, in the event your decision does not jibe with Washington's dictates, your decision may be overruled by bureaucrats whose knowledge of medicine may be narrow but whose grasp of political expediency is firm.

Thus the Social Security forces in government add one more attack to the broad base of governmental infiltration of medical practice. The powers of this section of our bureaucracy are now added to the pressures of the military forces, with their demands for more and more care for military dependents, and the veterans' representatives with their theory that any person who has worn Uncle Sam's uniform for thirty days is thereafter entitled to almost everything but especially to free medical and hospital care.

Medicine today stands as almost the sole defender of the old American right of self-dependence. Business has fled this front in the face of ever-increasing demands for security and welfare, paid for by the boss. Law and dentistry have defected in the face of the "inevitability" of all-inclusive Social Security. Medicine alone has denied this very inevitability and has chosen to face out the issue and to preserve, if possible, this one last crumb of independence, self-reliance and open opportunity.

The one glimmer on the horizon right now is a nationwide movement which would establish a committee of representative and respected citizens which would demand a thorough review of the entire Social Security system. What, they will ask, has happened to the billions of dollars poured out in involuntary "contributions" to the Social Security Fund? Is it true that these funds have been converted into federal IOU's for which additional taxes must be paid if beneficiaries are to receive what has been promised them? Does the beneficiary hold a contract, or is he merely relying on a promise made to him by the umptieth session of Congress? Is it true that the liabilities of the Social Security Fund are $300 billion, against which only $21 billion is held in trust, even in the form of federal IOU's? Is it true that this fund has been handled in a manner which would violate all state laws and would result in the directors of the fund being sent to penitentiaries?

These are some of the questions which should be asked—and answered. Many of them are academic, since the terms of the present laws are well known. But, does the American public know the right answers? Does the workingman who finds his take-home pay reduced by mandatory "contributions" know what has happened to his money? Does he have any assurance that a later session of the Congress will not write off his interest in these funds and leave him even worse off than he was before 1935? What happens to all those dollars he has put into this fund for the past twenty years? Or does he just pay more taxes to repay himself for what he has already paid?

Medicine stands in the forefront today of this inquiry into sound government. The news of nationwide organization to aid in this inquiry is indeed comforting. Creeping socialism has no place in the American scene and should be stopped forthwith. Medicine appears to have its role well outlined if the American people are to be given a fair return on their investment and a clear definition of where their own responsibilities lie and those of government begin.

medical review and advisory board

OF THE CALIFORNIA MEDICAL ASSOCIATION

The Development of the Board

JOSEPH F. SADUSK, JR., M.D., Oakland

THE GROWING PROBLEM of non-meritorious medical malpractice actions against physicians in California, together with a rapidly increasing premium rate for insurance coverage for judgments against physicians and the high incidence of such claims in California, led to the appointment of an *ad hoc* Committee on Malpractice Insurance by the Executive Committee of the California Medical Association in August, 1954. This committee consisted of Joseph F. Sadusk, Jr., M.D., Oakland, chairman; Wilbur Bailey, M.D., Los Angeles, vice-chairman; David O. Harrington, M.D., San Francisco, secretary, and members as follows: H. I. Burtness, M.D., Santa Barbara; Albert Currlin, M.D., Milpitas; John Ellis, M.D., Taft; Paul W. Frame, Jr., M.D., Sacramento; Verne G. Ghormley, M.D., Fresno; Carl M. Hadley, M.D., San Bernardino; J. J. Heffernan, M.D., Stockton; Joseph J. O'Hara, M.D., San Diego; William F. Quinn, M.D., Los Angeles; Denver D. Roos, M.D., Corona; Bernard Silber, M.D., Redwood City; and John Wood, M.D., Anaheim. Mr. Howard Hassard was appointed legal counsel and Mr. Rollen Waterson administrative consultant.

The directive of this committee was broad in scope. Instructions were given to make a thorough review of the medical malpractice claim problem as it then existed in California, and elsewhere as time and conditions permitted. The committee was asked to review the present coverage by insurance carriers in this field throughout the state and, finally, to present concrete recommendations to the C.M.A. Council for the future.

In October, 1954, the committee, which was representative of opinions throughout the entire state, quickly reviewed the problem. An executive group of the committee was appointed and instructed to prepare in detail a survey of medical malpractice insurance coverage in California, taking into special consideration the group programs, the extent and type of coverage, and whether or not the coverages at present given were acceptable to the physicians. At a later date, the chairman was instructed to review and report to the committee on the function and status of the group program in New York State. That program is the largest in the United States, covering approximately 14,000 physicians.

At a later meeting, the committee reviewed in considerable detail medical malpractice insurance coverage now available in California. There appeared to be basically two group programs: One was the northern California program, which was followed in an area bounded on the south by a line drawn north of Bakersfield and on the north by the Oregon border. It comprised some 20-odd counties. The other was the Los Angeles County Medical Association program. In the northern California program, one carrier, the American Mutual Liability Insurance Company of Boston, covered the entire area. In Los Angeles County at that time there were three approved carriers. Some nine to ten thousand members of the California Medical Association came under a group program for medical malpractice insurance. The remaining members in the state, particularly in southern California, were covered as individuals by a number of carriers, principally the so-called National Bureau Companies (Hartford, Travelers and Aetna).

The situation with regard to coverage was found not to be good. There were a variety of policies with different exclusion clauses; some of them were quite unsatisfactory. In addition, some of the carriers, particularly some of those which covered physicians individually, required so-called "package deals": The physician had to buy all types of insurance from the company in order to obtain malpractice insurance. Instances were reported of physicians of known integrity and professional ability being unable to obtain malpractice insurance coverage at any price. The premiums varied greatly. Most insurance carriers had progressed to the point where the difference in hazard between surgical and nonsurgical coverages was well recognized, resulting in a differential rate. It was found that premiums for the basic $5,000/15,000 coverage ranged anywhere from $50 a year for nonsurgical work to as high as $282 for an anesthesiologist desiring coverage for caudal and spinal anesthesia. For surgeons in certain so-called hazardous fields such as cosmetic plastic surgery, the premium for the basic $5,000/15,000 was as high as $289 in one area. In another area premiums for an anesthesiologist exceeded $800 a year for $100/300,000 coverage.

The acceptance of the insurance policies by the insured and the attitude of the physician toward the carrier varied greatly within the state. In some areas, physicians were well satisfied, and claims adjustments were considered excellent; in others the handling of claims by the carriers was reported to be unsatisfactory. In some instances the insurance companies were dissatisfied because of lack of cooperation by the physician.

The committee learned that premium rates had been increasing yearly not only in California but elsewhere in the United States and also in Canada. Premiums were found to have trebled since 1946 in some areas; in some they had quadrupled.

The committee came to the opinion that the factors leading to high premium rates in California were:

1. Inflation, necessitating higher payment for claims, judgments and defense.

2. The increasing tendency of the public to seek financial remuneration for imaginary or real damage, and for failure in diagnosis and treatment.

3. The increasing tendency of juries to award high judgments.

4. Unfavorable articles in lay magazines dealing with alleged malpractice, fee splitting, etc., and even the favorable articles which led the layman to believe that a less than perfect result is evidence of negligence.

5. Fee complaint problems which led to claims or suits filed to evade payment to the physician for his services.

6. Inherent hazards in certain fields of medicine, particularly in the surgical field.

Thanks to certain of the insurance carriers providing malpractice insurance coverage in California, data were obtained on premiums collected and losses paid out during the years 1946 through 1951. These data were carefully analyzed by the committee. It was found that in no instance in the state was there evidence that companies were making a profit on medical malpractice insurance; indeed, all companies showed a loss despite the rapid rise in premiums. The committee noted that this was true not only in California but in some other states. In the northern California program, the deficit was running approximately one million dollars a year; in New York State, it was found to be a matter of record that the group program was running a deficit of over three million dollars.

The chairman reported to the committee on his survey of the New York State program which had begun operations in 1921. This program was set up as a division of the New York State Medical Society. A committee, termed the Malpractice Insurance and Defense Board (consisting of a physician chairman, a physician vice-chairman, and five physician members) regulated the program with the assistance of a full-time executive secretary and a legal counselor. Approximately 14,000 physicians held insurance certificates in this program. The Board was responsible for negotiating premiums, for setting of broad policy for the defense of cases, for monitoring an educational and prevention program. It had disciplinary powers with respect to those physicians who committed repeated and flagrant acts of malpractice.

In April, 1955, as a result of careful review of medical malpractice insurance in the State of California, New York and elsewhere, the California Medical Association's *ad hoc* Committee on Malpractice Insurance recommended the following to the Council of the California Medical Association:

1. The creation of a group state program in California, embodying the good principles of the New York State program and the good principles of the northern California program at county level. It was recommended that there be a committee offering advisory services at state level, with actual functioning services to be provided at county level. Each county would have its own authority to select an insurance carrier and to regulate its own program.

2. The organization, at the state level, of a Medical Review and Advisory Board. This Board would be a component division of the California Medical Association and subject to the Council of the C.M.A. The Board would be served by a part-time executive secretary. This board was to consist of a physician chairman and approximately nine physician members. Also assigned to the Board would be legal counsel and an actuarial consultant. The executive secretary would carry on the day-to-day functioning of the Board.

3. Assignment to the Board of the following responsibilities: (a) assisting the counties with the

negotiation of policies and premiums; (b) setting of broad policy for the handling of suits within the state; (c) reviewing all anticipated appeals of lawsuits and approving or disapproving transfer of such suits to the appellate courts; (d) continuously receiving and analyzing data from the county programs on cost, distribution, type and causes of malpractice cases; (e) developing and monitoring an educational and prevention program; (f) continuously receiving the malpractice records of physicians and making a review and advisory service available on request to county committees on the acceptance of physicians in group programs, the modification of their coverage, or their rejection from a program.

It was recommended that the *ad hoc* Committee on Medical Malpractice Insurance be dismissed and that the Medical Review and Advisory Board, as noted above, be set up permanently to carry on a state program.

As a result, in May of 1955 the House of Delegates of the C.M.A. approved the council's recommendation for the setting up of a Medical Review and Advisory Board as defined above. A budget of $17,000 for the first year's operations was likewise approved. The board was set up as follows:

	Term expires
Joseph F. Sadusk, Jr., M.D., Chairman, Oakland	1958
Wilbur Bailey, M.D., Vice-Chairman, Los Angeles	1956
Howard W. Bosworth, M.D., Los Angeles	1956
H. I. Burtness, M.D., Santa Barbara	1956
Paul W. Frame, Jr., M.D., Sacramento	1958
Verne G. Ghormley, M.D., Fresno	1956
Carl M. Hadley, M.D., San Bernardino	1958
Joseph J. O'Hara, M.D., San Diego	1957
Rees B. Rees, M.D., San Francisco	1957
Bernard Silber, M.D., Redwood City	1957

Legal Counselor: Howard Hassard

Actuarial Consultant: Joseph Linder (Wolfe, Corcoran and Linder)

Executive Secretary: Rollen Waterson

The Medical Review and Advisory Board has had two meetings. It has received a report of Mr. Joseph Linder, the consulting actuary, and has reviewed and edited the specifications as prepared by Mr. Howard Hassard, the legal counselor. The specifications (which are presented in full at the end of this article) provide in very broad terms for the following:

1. A state-wide coordinated medical malpractice program administered and directed by the county medical societies at county level with a "safety" (prevention) program at the same level, and with advisory services offered at state level by the Medical Review and Advisory Board.

2. Complete financial and professional loss data to be collected for the state by the Medical Review and Advisory Board as the basis for a realistic annual recalculation of premium.

3. Specific data to be available for statistical analysis of losses by type of practice and by type of loss.

4. Reserves set aside by the carrier for each claim to be a matter of record in the Medical Review and Advisory Board files and the record to be available to each county medical society.

5. The cost of administration and carrying through of the safety program at county level to be provided for out of premiums.

6. Medical Review and Advisory Board expenses to be financed through the C.M.A. state budget.

In addition the Board voted to request the editor of California Medicine to have a more or less regularly recurring section in that journal for the Medical Review and Advisory Board. The purpose of this section will be to educate and inform physicians of the status of malpractice problems within the state as the program develops.

In order to expedite the collection of statistical data, the California Medical Association will ask all carriers of malpractice insurance in California to cooperate by supplying data on losses to the Medical Review and Advisory Board from January 1, 1955, onward.

These recommendations, along with the final draft of the specifications for a state-wide malpractice program, were presented to the C.M.A. Council on August 28, 1955, and approved by that body on the same date. Copies of the specifications and recommendations have been mailed to the constituent county medical societies of the California Medical Association, and each county medical society will be provided with copies for each member if it wishes to mail out such copies.

It is important to reemphasize certain of the basic policies of the Medical Review and Advisory Board. First, it should be stressed this is a truly *advisory* board. Insurance and policies will *not* be sold by the Board. The program is to be handled entirely at the level of each county or in any combination of county societies as they may wish. The expenses for the Medical Review and Advisory Board will not come out of the physician's premium dollar. Such expense as is necessary to finance the functions of the Board at state level will come from the budget of the California Medical Association. These expenses will be published yearly in California Medicine for the information of all physicians, and it has been recommended to each county medical society that the expenses for the administration of the programs at county level be likewise published in the county's medical bulletin. Each physician then will be able to determine how much of his premium dollar is being paid out for the administration of the program, the support of the county Medical Review Committee's work in analyzing each malpractice claim, and the cost of the safety or prevention program.

Recommendations and Specifications to County Medical Societies for a Group Malpractice Insurance and Prevention Program*

The following set of specifications has been adopted by the Medical Review and Advisory Board of the California Medical Association as a guide to county medical societies in the establishment and maintenance of group malpractice insurance and prevention programs. The specifications are for the type of program recommended by the Medical Review and Advisory Board and the Board will fully cooperate with programs that meet them.

EACH SPECIFICATION IS INTENDED TO STATE A GENERAL PRINCIPLE AND NOT AN INVIOLABLE RULE. Certain minor variations to take into account local conditions may be necessary and will be recognized by the Medical Review and Advisory Board.

1. *Nature of Program:*

A county society malpractice insurance and prevention program should include:

A long-term contract with an insurance carrier (minimum 5 years—10 recommended).

The establishment and active operation by the county medical society of a Medical Review Committee responsible for

(a) Investigation, review and recommendations regarding the medical aspects of each malpractice claim or suit arising in the county, such investigation and review to be strictly on a merit basis with the interests of both patient and physician accorded equal protection and the committee's recommendations to be available only to it, the group insurance carrier, defense counsel, and the physician against whom claim or suit has been made, and

(b) Carrying on a continuing educational program within the Society regarding the legal responsibilities of physicians, the causes of malpractice claims and suits, and the steps that may be taken to avoid them.

2. *Selection of Insurance Carrier:*

An insurance carrier should be selected on a merit basis, but only those carriers which meet the following criteria should be given consideration:

(a) The carrier should be licensed by the California Insurance Commissioner, or permitted by California law to write contracts in this state as a surplus line insuror,

(b) It is desirable that paid-in capital and unassigned surplus of the carrier should be at least ten times the aggregate annual gross premiums paid by all physicians in the Society for the immediately preceding year or $5,000,000.00, whichever is greater,

(c) It is desirable that such capital and unassigned surplus should be held by the carrier in investments in the United States,

(d) Carriers with previous experience in the group malpractice field should be preferred over those with no experience at all.

3. *Type of Contract:*

The contract should contain a broad definition of the acts or omissions insured against, e.g. all claimed malpractice, errors or mistakes, breach of implied contract, assault, battery, slander, etc.

Settlements without the written consent of the insured physician, or the Society should be prohibited.

There should be no exclusions as to the obligation of the carrier to defend, and the only exclusions from the carrier's obligation to indemnify should be criminal acts or acts undertaken by the physician while under the influence of narcotics or alcohol.

Certificates issued under the master contract should not be subject to cancellation except as hereinafter specified.

4. *Cancellation:*

The master contract should permit outstanding certificates to be cancelled only with the mutual consent of the Society (acting through its committee, or, upon request, the California Medical Association's Medical Review and Advisory Board) and the carrier. If the Society so desires, the contract should provide that in the event of recommended cancellation, the physician involved, the Society or the insuror may appeal to the C.M.A. Medical Review and Advisory Board, whose decision shall be final. The carrier should be obligated to issue renewal certificates to all Society members who have paid the appropriate premium and whose certificates have not been cancelled under the above procedure.

5. *Limits of Liability (Amount of Coverage):*

Limits of liability should be available in an amount of not less than $100,000 per person and $300,000 per contract year. The minimum coverage written should be not less than $25,000 per person and $75,000 per contract year for practicing physicians and $5,000/$15,000 for physicians engaged in full time postgraduate education (generally known as resident house officers). Each physician should be permitted to select coverage limits in the standard brackets of $25,000/$75,000, $50,000/$150,000, $75,000/$225,000, $100,000/$300,000.

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*Approved by the Council of the California Medical Association, August 28, 1955. Amended November 11, 1955. Approved by C.M.A. Council, November 12, 1955.

6. *Premium Rates:*

Rates should be adjusted annually, should be in effect from September 1 to August 31 and should be based on all pertinent experience data up to December 31 of the preceding year. Rates may vary by county or by rating classes within a county, each rating class consisting of one or more types of practice.

At least six months prior to the commencement of each contract year, the insurance carrier should submit to the Society its proposed rate structure for the ensuing year and should also submit to the Society all data and statistics on which its proposed rates are based. At least four months prior to the commencement of the contract year, the Medical Review and Advisory Board will, if the Society so desires, assist in the negotiation of the proposed new rates.

7. *Defense of Claims and Suits:*

(a) The carrier should satisfy the Society that it has an experienced and adequate investigation staff.

(b) Defense counsel should be mutually selected by the carrier and the Society after consultation with the Medical Review and Advisory Board of the C.M.A.

(c) The carrier should agree that, upon request of the Society, its investigation system and general handling of claims and suits shall be subject at all times to inspection and review by a designated consultant representing the C.M.A.'s Medical Review and Advisory Board.

(d) The carrier and the Society should agree that final decision as to the taking of an appeal in any case in which an adverse final judgment has been rendered should be made after consultation with legal counsel for the C.M.A.'s Medical Review and Advisory Board.

8. *Records and Statistics:*

(a) The carrier and the Society should agree that within a reasonable time after the close of each month, there shall be furnished to the Society for forwarding to the Medical Review and Advisory Board summary information on exposure and premiums for each county—divided by type of practice.

At the time of the establishment of a reserve on each claim there should also be furnished to the Society for forwarding to the Medical Review and Advisory Board a synopsis of the case including the amount of the reserve. Also, every change in each such reserve (including the amount finally paid, if any) should be reported to the Society and to the Board.

(b) The carrier should agree that in establishing a reserve or in making a reserve change for each incident, claim or suit, each such reserve or reserve change shall be set up only after consultation between legal counsel for the Society and the carrier.

(c) All data compiled by the C.M.A.'s Medical Review and Advisory Board from the information so furnished will be at all times available to the Society and the carrier.

9. *Enrollment:*

(a) Eligibility to participate in the program should be restricted to members of the Society who are approved by the Society for insurance. If the Society so desires, the contract should provide that in the event the Society refuses to approve an applicant, he may appeal to the C.M.A. Medical Review and Advisory Board, whose decision shall be final.

(b) Individual certificates issued under the master contract should be for full twelve months intervals, without a common expiration date.

10. *Disputes:*

The carrier and Society may agree that in the event of difference of opinion between them respecting such matters as cancellation of an individual physician's coverage, eligibility for enrollment, application of the experience rating formula to premiums, interpretation of contract provisions, etc., all relevant facts concerned may be submitted to the C.M.A.'s Medical Review and Advisory Board, and if so submitted its decision shall be final and binding on the carrier and the Society.

11. *Fund for Collection Costs and Safety Program:*

The Society and insuror should agree that a fixed sum per certificate in force per year should be paid by the insuror into a separate trust fund set up and managed by the Society for the purpose of a continuing malpractice safety program to reduce causes of malpractice claims and to defray routine premium collection and similar costs. Such Fund should be used for these purposes only and should be subject to audit by the C.M.A. Medical Review and Advisory Board to verify that such Fund has been expended within these purposes.

In Memoriam

BOEHMER, ARTHUR C. Died in Truckee, October 7, 1955, aged 65, of cerebral vascular accident. Graduate of the University of Illinois College of Medicine, Chicago, 1914. Licensed in California in 1917. Doctor Boehmer was a member of the San Joaquin County Medical Society.

✠

CHRISTMAN, PAUL WILLIAM. Died in Sacramento, June 23, 1955, aged 65, of coronary occlusion. Graduate of Johns Hopkins University School of Medicine, Baltimore, Maryland, 1916. Licensed in California in 1919. Doctor Christman was a member of the Sacramento Society for Medical Improvement.

✠

DICK, NOBLE. Died in Santa Rosa, September 26, 1955, aged 63, of pulmonary fibrosis. Graduate of the Medical College of the State of South Carolina, Charleston, 1924. Licensed in California in 1944. Doctor Dick was a member of the Sonoma County Medical Society.

✠

HENRY, ZIBA L. Died in San Francisco, October 16, 1955, aged 83. Graduate of Starling Medical College, Columbus, Ohio, 1896. Licensed in California in 1919. Doctor Henry was an associate member of the San Francisco Medical Society.

✠

HIXSON, A. H. Died September 16, 1955, aged 71. Graduate of Rush Medical College, Chicago, Illinois, 1914. Licensed in California in 1916. Doctor Hixson was a member of the Los Angeles County Medical Association.

NELSON, RONALD C. Died in Beverly Hills, October 31, 1955, aged 53, of coronary occlusion. Graduate of the University of Illinois College of Medicine, Chicago, 1930. Licensed in California in 1930. Doctor Nelson was a member of the Los Angeles County Medical Association.

✠

O'HARA, FRANCIS P. Died in La Jolla, February 12, 1955, aged 52, of leukemia. Graduate of Stanford University School of Medicine, Stanford University-San Francisco, 1928. Licensed in California in 1928. Doctor O'Hara was a member of the San Diego County Medical Society.

✠

OSBURN, JOHN NELSON NEILL. Died on Bay Island, October 11, 1955, aged 69. Graduate of the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1909. Licensed in California in 1920. Doctor Osburn was a retired member of the Orange County Medical Association, the California Medical Association and an associate member of the American Medical Association.

✠

STONE, LEE A. Died in Fresno, November 5, 1955, aged 76, of cerebral hemorrhage. Graduate of the Kentucky University Medical Department, Louisville, 1902. Licensed in California in 1941. Doctor Stone was an associate member of the Madera County Medical Society.

✠

WORSTER, WILLIAM W. Died in San Gabriel, October 6, 1955, aged 77. Graduate of the American Medical Missionary College, Battle Creek, Michigan, and Chicago, Illinois, 1901. Licensed in California in 1901. Doctor Worster was a member of the Los Angeles County Medical Association.

WOMAN'S AUXILIARY
TO THE CALIFORNIA MEDICAL ASSOCIATION

Christmas in Our Communities

During the past few months, we have discussed some of the broad-scale activities of your Woman's Auxiliary, and the significance of these activities in the overall picture of the California Medical Association. This month, we would like to tell you about some of our closer-to-home activities—of some of the less spectacular ways in which your Auxiliary members work in their communities.

December offers many examples of our community work, typical of the year-around work that we do. Not all of this is in the medical field. Yet we feel that by working in our communities we may be performing our best service to the C.M.A., since one of the major aims of the medical profession is to help the less fortunate members of society.

The following will give you some idea of the ways Auxiliary members all over California are helping their communities in some measure to enjoy a happier, better Christmas:

In Sonoma each Auxiliary member is supplying and wrapping a gift for a needy child whose name and age has been given by a local agency. Most of these children are wards of the court or outpatients from the Sonoma County Hospital. The gifts will be distributed this year at the Auxiliary's fourth annual Christmas party for such children.

In Fresno Auxiliary members will staff the tuberculosis Christmas Seal booths throughout the county for one week.

In Napa members are collecting gifts donated by various druggists and are wrapping them and distributing them to patients in Parks Victory Hospital.

In San Mateo Auxiliary members are donating ornaments for the Christmas trees which they decorate annually in the wards of Mills Memorial Hospital.

In Orange members are conducting a drive to collect sewing and knitting materials for patients in the geriatrics ward at the County Hospital.

In Kern the Auxiliary has just completed payment of an $8,000 pledge to the Greater Memorial Hospital . . . members are working with the Bakersfield Community League in many Christmas activities.

In Stanislaus each member is to take a brightly wrapped toy to the Auxiliary's annual Christmas dinner dance, the toys to be given to the Salvation Army for distribution in Christmas boxes.

In San Diego the Auxiliary has a traditional Christmas project: Working with its local Welfare Department, the Auxiliary "plays Santa" to the children in the Welfare Adoption Unit. The Christmas wish of each child is found out and filled, where possible, by Auxiliary members with the gift of a toy. To pay for the toys, members make Christmas decorations to be sold at their December meeting, at which time the toys are also displayed.

In San Bernardino members Christmas-wrap games as gifts for tuberculosis patients in the County Hospital; send gifts of magazine subscriptions to the student nurses they are sponsoring; and contribute to "Santa Claus, Inc.," a local organization which helps needy families at Christmas time.

In Santa Cruz the Auxiliary supplies and wraps small gifts for each patient in the County Hospital.

In Humboldt members will take toys to their December meeting to help replenish the toy cart at their County Hospital for Christmas.

In Riverside the Auxiliary is supplying Christmas gifts to the Toy Loan Library of its Community Settlement House. In addition to rounding up "outgrown toys" and "duplicates," each member contributes $1 for the purchase of new toys.

In Los Angeles members in Long Beach are making Christmas dolls for needy children . . . the Southeast Branch members are raising money to make stoles for bedridden patients at Ranchos Los Amigos Hospital.

In San Joaquin members will supply and wrap Christmas gifts of clothes or toys for the boys at Fricot Home. This is the tenth year for this traditional Christmas project.

In Placer, Auburn members are wrapping gifts for patients at the DeWitt State Hospital, another Christmas tradition.

In Solano, following its annual tradition, the Auxiliary will "adopt" a ward at the County Hospital in Fairfield and "bring Christmas" to it. Members will decorate a Christmas tree for the ward, wrap gifts for each patient, put on a Christmas party and present a gift to the ward itself for the comfort and convenience of all. The Auxiliary also contributes to "Santa Claus Consolidated," an organization to bring Christmas cheer to the needy. In addition it helps in the sale of tuberculosis Christmas seals.

We all wish you a very Merry Christmas!

A New Finance Chairman

At its fall board meeting, the Auxiliary accepted regretfully the resignation of Mrs. Dan Kilroy as state finance chairman. The new chairman is Mrs. Garvin Goble of Fortuna, Humboldt County.

Tulare County Organizes

We welcome our newest county auxiliary, Tulare, which was organized in September with 36 charter members. This brings our total of auxiliaries to 33 and our total membership to above 6,100.

NEWS & NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

Dr. William F. Kaiser of Berkeley was installed as president of the Alameda-Contra Costa Medical Association at a meeting late last month. He had been vice-president during the preceding year. Dr. Grant Ellis, also of Berkeley, was installed as vice-president, and Dr. Robert Leet, of Oakland, as secretary-treasurer.

New members of the council are Drs. Harold Kay and Donald Bellamy of Oakland, Dr. Byron Royce of Hayward and Drs. Philip Ferrier, John Leland and Paul McChesney, all of Berkeley.

LOS ANGELES

Dr. Arthur A. Kirchner of Los Angeles was chosen president-elect of the American College of Gastroenterology at the annual meeting recently held in Chicago. He will assume the presidency at the annual meeting in New York in October, 1956. **Dr. Donald C. Collins**, Hollywood, was elected a trustee.

The College also announced that the first prize and a certificate of merit in its Ames Award Contest for the best unpublished paper on gastroenterology or an allied subject, written by a resident, were awarded to Dr. Robert S. Kaplan, senior surgical resident at the Cedars of Lebanon Hospital, Los Angeles.

* * *

The Eighth Annual **Midwinter Radiological Conference**, sponsored by the Los Angeles Radiological Society will be held at the Biltmore Hotel, Los Angeles, on Saturday and Sunday, February 25 and 26, 1956. A banquet preceded by cocktails will be held at the Biltmore on Saturday evening, February 25. Foreign and out-of-state speakers will include Dr. R. McWhirter, Edinburgh, Scotland; Dr. Narno Dorbecker, Mexico City; Dr. Philip Hodes, Philadelphia; and Dr. David Pugh, Rochester, Minnesota.

Reservations may be made through the conference secretary, Dr. Norval Zimmerman, 3875 Wilshire Blvd., Los Angeles 5. The Conference fee is $20, including two roundtable luncheon meetings, and the banquet will be $7 a plate.

* * *

The **Southwest Mayo Foundation Alumni Dinner** will be held January 4 at the Ambassador Hotel, Los Angeles. All Mayo alumni and their wives are invited to attend. Further information may be obtained from Gilbert J. Thomas, M.D., 2200 Santa Monica Boulevard, Santa Monica, telephone EXbrook 3-3761.

* * *

A special invitation to breakfast is being issued by Branch 23 of the **American Medical Women's Association** to all medical women who plan to attend the Los Angeles County Medical Association's 85th Anniversary Convention on January 3, 4 and 5, in Los Angeles. The breakfast will be January 4 at the County Medical Association Building, 1925 Wilshire Boulevard, Los Angeles. Dr. Nadina Kavinoky, recently returned from presenting a paper at the Fifth International Congress on Planned Parenthood, held in Tokyo, will be guest speaker. Reservations will be taken by a representative of the A.M.W.A. at the convention registration desk.

The **Los Angeles Society of Neurology and Psychiatry** chose as its officers for the year 1955-56, Dr. John D. Moriarty, president; Dr. James E. McGinnis, vice-president; and Dr. Henry J. Wegrocki, secretary-treasurer.

* * *

Appointment of **Dr. John Peterson** as assistant dean of the School of Medicine of the College of Medical Evangelists was announced by the college recently. A C.M.E. School of Medicine graduate of 1939, Dr. Peterson has served as clinical professor of medicine at the College for the past few years.

ORANGE

Dr. Milo K. Tedstrom of Santa Ana was elected president of the **Orange County Heart Association** at the first annual meeting of the organization held in October. Dr. Francis G. Mackey of Fullerton was elected vice-president, and Dr L. F. Whitaker, Huntington Beach, secretary. A unit of the American Heart Association, the county organization was formed about a year and a half ago.

SAN FRANCISCO

Dr. David A. Wood, a member of the Cancer Commission of the California Medical Association and director of the Cancer Research Institute at the University of California Medical Center in San Francisco, was elected vice-president and president-elect of the American Cancer Society at the society's annual meeting in New York. **Dr. Wendell M. Stanley**, director of the U. C. Virus Laboratory at Berkeley, was elected to the board of trustees of the society.

* * *

Two fellowships are available at the Veterans Administration Hospital, San Francisco, it was announced recently by Dr. Forrest M. Willett, chief of the medical service at the hospital. The fellowships are by appointment from Stanford University School of Medicine, and each bears a stipend of $300 per month. The appointments are for one year and will be renewable for an additional year. The applicants must be graduates of a class A medical school, with preference given to candidates who have adequate previous training in clinical medicine.

One is a **fellowship in cardiology** under the auspices of the San Mateo County Heart Association, beginning July 1, 1956, and will provide an opportunity for clinical investigation or basic research in the field of cardiovascular disease. The other **fellowship is in hematology**, beginning on the same date, under the auspices of the National Institutes of Health, and will provide opportunity for clinical investigation or basic research in the field of hematology and tumor chemotherapy.

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Dr. Earl R. Miller, professor of radiology at the University of California School of Medicine, San Francisco, was elected chairman of the board of chancellors of the American College of Radiology at the fall meeting of the College in Chicago. Dr. Miller succeeds Dr. Wilbur Bailey, Los Angeles, retiring board chairman.

GENERAL

Officers of the **California Society of Internal Medicine**, elected at the annual meeting held at Santa Barbara, October 1, were: President, Dr. George K. Wever of Stockton, succeeding Dr. Paul Hoaglund of Pasadena; vice-president, Dr. William C. Mumler, Los Angeles; secretary-treasurer, Dr. Claude P. Callaway, San Francisco. Council members are: Drs. Lewis T. Bullock of Los Angeles; Thurman K. Hill, Santa Barbara; Walter P. Martin, Long Beach; Paul V. Morton, San Jose; Robert L. Smith, Jr., San Francisco, and James H. Thompson, San Francisco.

The ninth annual meeting of the **Western Society for Clinical Research** will be held January 27 and 28 at Carmel, California. Information regarding the meeting may be obtained from Arthur J. Seaman, secretary-treasurer, University of Oregon Medical School, Portland, Oregon.

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The Fifth Congress of **Pan American Medical Women's Alliance** will be held in Santiago and Vina del Mar, Chile, March 4-14, 1956. Opportunities for sightseeing and visits to medical programs in Mexico, Salvador, Panama, Chile, Bolivia and Peru have been arranged, according to the announcement of the Congress. Information may be obtained from the secretary, Dr. Eva F. Dodge, 2124 West 11th Street, Little Rock, Arkansas, or from the program chairman, Dr. Eva Cutright, Wooster, Ohio.

* * *

The 16th Annual **Congress on Industrial Health** will be held January 23-24 at the Sheraton-Cadillac Hotel, Detroit. The principal speakers, according to announcement by the Council on Industrial Health of the American Medical Association, are Elmer Hess, M.D., the president of the American Medical Association, and Benson Ford, vice-president of Ford Motor Company. General subjects to be covered are: Occupational medicine in industrial relations, medicine's responsibilities in the automotive age, and absence from work due to nonoccupational illness and injury.

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The Tenth Inter-American Congress of the **Pan American Medical Association** will be held in Mexico City, March 25-31, 1957. The Congress will be held in sections covering all branches of medicine. Four days will be devoted to scientific sessions and the next three days will be spent in sightseeing, with visits to Cuernavaca, Taxco and Acapulco. Monday and Tuesday of the following week, medical meetings will be held in Guatemala City in conjunction with the local chapter there.

POSTGRADUATE EDUCATION NOTICES

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association. In order that they may be listed here, please send communications relating to your future medical or surgical programs to: Mrs. Margaret H. Griffith, Assistant Director, Postgraduate Activities, California Medical Association, 417 South Hill Street, Los Angeles 13.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Treatment of Emotional Problems, Thursdays, January 5 to March 22, 1956. Twenty-four hours. Fee: $50.00.

Pathological Physiology, Mondays, January 30 to April 16, 1956. Twenty-four hours. Fee: $50.00.

Application of Basic Science Techniques to Psychiatric Research, Thursday and Friday, January 26 and 27, 1956. Ten and one-half hours. Fee: $3.50.

Dermatology 1956, Friday and Saturday, June 22 and 23, 1956. Twelve hours.

Contact: Thomas H. Sternberg, M.D., Assistant Dean for Postgraduate Medical Education, U.C.L.A., Los Angeles 24.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

In San Francisco:

Conference on Dermatology for General Practitioners, January 13 and 14, 1956. Twelve hours. Fee: $40.00.

Ophthalmological Conference on Clinical Pathology, February 9, 10, 11, 1956. Fee: $85.00.

Conference on Poliomyelitis, February 23, 24, 25, 1956.*

Course for General Practitioners, March 5 to 9, 1956. Fee: $65.00.

Bedside Cardiology, March 19 to 23, 1956.*

Course in Electrocardiography for Beginners, March 19 to 23, 1956.*

Proctology, April 7, 1956.*

Urology in Office Practice, April 8, 1956.*

Plastic Surgery, May 18, 1956.*

Peripheral Vascular Surgery, May 19, 1956.*

Contact: Seymour M. Farber, M.D., Head, Postgraduate Instruction, Office of Medical Extension, University of California Medical Center, San Francisco 22.

UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES

In Los Angeles:

Practical Electrocardiography, Friday, Saturday and Sunday, February 10, 11, 12. All day. Fee: $50.00.

Surgical Planing. Begins March 10, 1956. Twelve hours. Fee: $25.00.

Essential Physics of Therapeutic Radiology and Clinical Applications. Begins March 24, 1956. Twenty-four hours. Fee: $75.00.

Contact: Phil R. Manning M.D., Director of Medical Extension Education, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles 33.

COLLEGE OF MEDICAL EVANGELISTS

Anesthesiology. Daily, full-time, four months, beginning each four months. Fee: $300.

Medical Clinics, Tuesdays, January 3 to March 20, 1956. Eighteen hours. Fee: $50.00.

Differential Diagnosis of Internal Diseases, Tuesdays, January 3 to March 20, 1956. Eighteen hours. Fee: $50.00.

General Urology, Wednesdays, January 4 to February 29, 1956. Thirteen and one-half hours. Fee: $35.00.

Management of Infertility, Thursday, January 5 to February 23, 1956. Twelve hours. Fee: $30.00.

Dermatology, Tuesdays, January 10 to March 27, 1956. Eighteen hours. Fee: $40.00.

Varicose Veins and Surgical Diseases of the Peripheral Vascular System, Tuesdays, January 17 to February 28, 1956. Fourteen hours. Fee: $30.00.

Otolaryngology, Tuesdays, February 7 to March 27, 1956. Twelve hours. Fee: $30.00.

Gynecology, Wednesdays, March 21 to May 23, 1956. Ten hours. Fee: $30.00.

Operative Surgery, Wednesdays, March 21 to June 6, 1956. Thirty hours. Fee: $200.00.

Thoracic Surgery, Wednesdays, April 18 to May 9, 1956. Eight hours. Fee: $30.00.

Diseases and Injuries of Bones and Joints, Daily, July 2 to July 31, 1956. Full time. Fee: $100.00.

Contact: Chairman, Section on Graduate and Postgraduate Medicine, College of Medical Evangelists, 1720 Brooklyn Ave., Los Angeles 33.

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*Fees to be announced.

STANFORD UNIVERSITY

Monday Morning Clinical Conferences, Room 515.

Contact: D. H. Pischel, M.D., Professor, Division of Ophthalmology, Stanford University School of Medicine.

Postgraduate Conference in Otorhinolaryngology, March 26 to 30, 1956. Fee: $100.00.

Postgraduate Conference in Ophthalmology, March 19 to 23, 1956. Fee: $100.00.

For information contact: Office of the Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco 15.

CALIFORNIA MEDICAL ASSOCIATION POSTGRADUATE INSTITUTES

SOUTHERN COUNTIES in association with the University of Southern California School of Medicine, January 19-20, 1956, at Laguna Beach.

WEST COAST COUNTIES in association with College of Medical Evangelists, March 1-2, 1956, in Carmel.

NORTH COAST COUNTIES in association with University of California School of Medicine, San Francisco, April 5 and 6, 1956, in Santa Rosa.

SAN JOAQUIN VALLEY COUNTIES in association with the University of California School of Medicine, Los Angeles, May 10 and 11, 1956, in Fresno.

SACRAMENTO VALLEY COUNTIES in association with Stanford University School of Medicine, June 21, 22, 1956, at Lake Tahoe.

Contact: C. A. Broaddus, M.D., Director of Postgraduate Activities, P.O. Box A-1, Carmel, California, or Mrs. Margaret H. Griffith, Assistant Director, Postgraduate Activities, California Medical Association, 417 So. Hill St., Los Angeles 13.

Medical Dates Bulletin

JANUARY MEETINGS

LOS ANGELES MIDWINTER MEDICAL CONVENTION, January 3, 4, 5, 1956, Biltmore Hotel, Los Angeles. An 85th anniversary, sponsored by Los Angeles County Medical Association.

Contact: Jerry L. Pettis, Public Relations Counsel, Los Angeles County Medical Association, 1925 Wilshire Blvd., Los Angeles 57. Telephone DUnkirk 5-1581.

LOS ANGELES COUNTY MEDICAL ASSOCIATION "Cavalcade of Health and Medical Progress," Shrine Auditorium, Los Angeles, January 6 to 15.

Contact: Bert Fitzgerald, business manager, Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles 57.

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, January 14, 1956.* Pediatric Surgery, with special emphasis on diagnosis, referral, preparation, pre- and postoperative care.

FEBRUARY MEETINGS

PUBLIC HEALTH LEAGUE OF CALIFORNIA annual meeting Southern District, Los Angeles, 6:30 p.m., February 2, 1956; annual meeting Northern District, 6:30 p.m., February 9, 1956, in San Francisco.

Contact: Ben H. Read, executive secretary, 510 South Spring Street, Los Angeles 13.

ALAMEDA-CONTRA COSTA MEDICAL ASSOCIATION Graduate Assembly. "The Dynamics of Endocrine Disease," Highland-Alameda County Hospital, February 10.

Contact: L. W. Kinsell, M.D., Instructor for Metabolic Research, Highland-Alameda County Hospital, Oakland.

AMERICAN BOARD OF SURGERY EXAMINATIONS, Part II, Los Angeles, February 13 and 14. Closing date is December 1.†

AMERICAN BOARD OF SURGERY EXAMINATIONS, Part II, San Francisco, February 16 and 17. Closing date is December 1.†

MIDWINTER X-RAY CONFERENCE sponsored by Los Angeles Radiology Society, Biltmore Hotel, Los Angeles, February 25 and 26, 1956.

Contact: Robert B. Engle, M.D., program chairman, St. Luke's Hospital, Pasadena 8.

UNIVERSITY OF CALIFORNIA SPROUL ANNIVERSARY CELEBRATION SYMPOSIUM, "The University and the Medical Sciences." Monday and Tuesday evenings, February 27 and 28, 1956, Morrison Auditorium in Golden Gate Park, San Francisco. All physicians cordially invited to attend.

Contact: Seymour M. Farber, M.D., chairman, at Office of Medical Extension, University of California Medical Center, San Francisco 22. MOntrose 4-3600.

SPRING MEETINGS

COLLEGE OF MEDICAL EVANGELISTS ALUMNI POSTGRADUATE CONVENTION. Refresher courses, March 4 and 5, 1956, White Memorial Hospital, Los Angeles. Scientific Assembly, March 6 to 8, 1956, Biltmore Hotel, Los Angeles.

Contact: Walter B. Crawford, managing director, College of Medical Evangelists, Loma Linda.

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, March 17, 1956.* Morning: Dermatology. Afternoon: Nutritional problems peculiar to modern pediatrics.

CALIFORNIA TUBERCULOSIS AND HEALTH ASSOCIATION, California Trudeau Society and California Sanatorium Association Annual Meeting, Sheraton-Palace Hotel, San Francisco, April 5, 6, 7.

Contact: E. L. Daggett, director, Public Relations, California Tuberculosis and Health Association, 130 Hayes Street, San Francisco 2.

UNITED STATES-MEXICO BORDER PUBLIC HEALTH ASSOCIATION, 14th annual meeting, Calexico (California) and Mexicali (Baja California), April 13 to 16, 1956.

Contact: Sidney B. Clark, M.D., secretary, 204 U. S. Court House, El Paso, Texas, or Donald G. Davy, M.D., assistant chief, Division of Local Health Service, 2151 Berkeley Way, Berkeley 4.

MEDICAL ALUMNI COMMITTEE OF CHILDREN'S HOSPITAL, San Francisco, April 14, 1956.* Behavior Problems and Childhood Psychiatry.

AMERICAN COLLEGE OF PHYSICIANS 37TH ANNUAL SESSION, Los Angeles, April 16-20, 1956.

Contact: George C. Griffith, M.D., General Chairman, Box 25, 1200 N. State St., Los Angeles 33.

VALLEY CHILDREN'S HOSPITAL ANNUAL SPRING CLINICS, April 27 and 28, 9 a.m., Roosevelt High School Auditorium, Fresno.

**For registration or information, contact:* Gertrude Jones, M.D., Children's Hospital, San Francisco.

†*For information, contact:* John B. Flick, M.D., 255 S. Fifteenth Street, Philadelphia 2, Pa.

WESTERN INDUSTRIAL MEDICAL ASSOCIATION annual meeting, all day, April 28, Ambassador Hotel, Los Angeles.
Contact: Edward Zaik, M.D., secretary, 740 South Olive Street, Los Angeles 14.

HAWAII MEDICAL ASSOCIATION Centennial Celebration. Scientific sessions, historical pageant of 100 years of medicine in Hawaii, social festivities, etc., Honolulu, April 22 to 29.
Contact: Hawaii Medical Association, 510 S. Beretania Street, Honolulu 13, Hawaii.

CALIFORNIA MEDICAL ASSOCIATION ANNUAL MEETING, Ambassador Hotel, Los Angeles, April 29 to May 2, 1956.
Contact: John Hunton, Executive Secretary, 450 Sutter St., San Francisco 8, or Ed Clancy, Director of Public Relations, 417 S. Hill St., Los Angeles 13.

NEW MEXICO MEDICAL SOCIETY annual session, Roswell, New Mexico, May 2 to 4.
Contact: Ralph R. Marshall, executive secretary, 223-24 First National Bank, Albuquerque, N. M.

CALIFORNIA HEART ASSOCIATION ANNUAL MEETING AND SCIENTIFIC SESSION, La Playa Hotel, Carmel, May 18 to 20, 1956.
Contact: Alan Croft Blanchard, field director, California Heart Association, 1428 Bush Street, San Francisco 9.

WESTERN BRANCH, AMERICAN PUBLIC HEALTH ASSOCIATION Annual Meeting, Salt Lake City, Utah, May 30 to June 2.
Contact: Mrs. L. Amy Darter, secretary-treasurer, at State Public Health, 2151 Berkeley Way, Berkeley 4, California.

COLORADO DIVISION OF THE AMERICAN CANCER SOCIETY 10th annual Rocky Mountain Cancer Conference, Shirley-Savoy Hotel, Denver, Colorado, July 11 and 12.
Contact: John S. Bouslog, M.D., 835 Republic Building, Denver 2, Colorado.

PROGRAM OF SCIENTIFIC MOTION PICTURES

AT THE 1956 ANNUAL MEETING of the California Medical Association, to be held at the Ambassador Hotel, Los Angeles, April 29 through May 2, approximately 100 motion pictures on surgery and medicine will be shown on the program of the Motion Picture Division.

If you would like to present a scientific motion picture film on this program, you must submit an application for approval not later than February 1, 1956.

Address all communications to:

ARTHUR E. SMITH, M.D., D.D.S.
Chairman, Motion Picture Division, California Medical Association
1930 Wilshire Boulevard, Suite 511
Los Angeles 57, California

INFORMATION

Los Angeles Midwinter Medical Convention

A WELL-ROUNDED PROGRAM emphasizing coordinated discussions on major developments in many phases of medical science will be an important feature of the Los Angeles Midwinter Medical Convention January 3, 4 and 5, 1956, according to Ewing L. Turner, M.D., president of the Los Angeles County Medical Association. Immediately afterward, a Cavalcade of Health and Medical Progress, open to the public, will be held in the Shrine Auditorium and Exposition Hall. It will begin January 6 and end January 15.

Conceived to commemorate the 85th anniversary of the association, the convention will offer a number of innovations which should be of interest to physicians everywhere, Dr. Turner said.

Instead of the usual series of individual papers on a number of unrelated subjects, the convention program has been planned to coordinate the newest and most significant information in six major fields of medicine, he said.

Paul D. Foster, M.D., general chairman of the convention, has announced a program organized into sections in which prominent medical authorities and lecturers will lead panel discussions on:

1. Medicine's Role in the Atomic Age
2. Newer Concepts in the Use of Blood
3. Cancer and Allied Diseases
4. Preventive Medicine
5. Use and Misuse of Miracle Drugs
6. Management of the Geriatric Patient

One half-day session will be devoted to each subject.

A top-ranking panel of more than 30 of the nation's outstanding medical authorities, clinicians and specialists will serve as program moderators and discussion leaders.

Moderators announced by Arthur A. Kirchner, M.D., program chairman, include:

Edmund V. Cowdry, Ph.D., geriatrician and professor of cytology at Washington University Medical School, St. Louis; Oscar B. Hunter, M.D., pathologist, Georgetown University Medical School, Washington, D. C.; Perrin H. Long, M.D., professor of medicine and executive officer at New York College of Medicine of the State University of New York; Karl Meyer, Ph.D., M.D., public health authority and director emeritus of the University of California's famed Hooper Foundation for Medical Research, San Francisco; George T. Pack, M.D., clinical professor of surgery at New York Medical College and a staff member of the Memorial Cancer Center, New York; and Stafford L. Warren, M.D., dean of the School of Medicine at the University of California at Los Angeles.

Convention headquarters will be at the Biltmore Hotel. In order to center convention activities and to facilitate attendance at the scientific sessions, the LACMA also has engaged the 2500-seat Philharmonic Auditorium just across the street from the hotel.

Strong emphasis has been given to developments and problems encountered in present-day medical practice in the closely integrated three-day program. In addition to the six moderators, 27 panelists will participate in the discussions. Examples of the wide range of topics to be discussed are:

"New Developments in Atomic Medicine," by John Bugher, M.D., of the Rockefeller Institute, New York; "Advantages and Complications from Use of Plasma, Plasma Fractions and Plasma Expanders," by Sam Gibson, M.D., associate director of the American Red Cross National Blood Program, Washington, D. C.; "Gynecological Cancer," by Gray H. Twombly, M.D., of New York; "Current Preventive Problems of Child Health," by Leslie Corsa, Jr., M.D., of the California State Department of Public Health; "Preventive Medicine in Industry," by James H. Sterner, M.D., medical director of the Eastman Kodak Company, Rochester, N. Y.; "Progress in Preventive Medicine," by James Watt, M.D., director of the National Heart Institute, National Institutes of Health, Bethesda, Md.; "Steroids in General Practice," by Dalton Jenkins, M.D., of the University of Colorado; and "Medical Aspects of Geriatrics" by Paul Starr, M.D., of the University of Southern California School of Medicine, Los Angeles.

A broad medical motion picture program including more than 20 films on diversified subjects also will be a part of the scientific sessions.

Cavalcade of Health and Medical Progress

The Cavalcade of Health and Medical Progress, which follows the convention, is designed for a lay audience. Purpose of the ten-day Cavalcade is to present health and medical education on a mass basis to the public.

The public will be made to feel a part of America's great medical system, to know all the factors about medicine which can be assimilated without a medical education and medical background. They will hear many of the same speakers who will address the

Midwinter Convention scientific sessions for doctors, with technical terms carefully translated into nontechnical language. Dr. Walter C. Alvarez, noted medical authority and syndicated columnist, and United States Surgeon General Leonard Scheele will participate in the program.

In the knowledge that many illnesses are brought on by ignorance of medical facts and fear of the unknown, the LACMA believes the time has come when those who want to know more about themselves may get this information direct from a world medical authority at a convention or cavalcade sponsored by their own doctors.

Importance of the educational aspect of the Cavalcade is shown by the official interest of the Los Angeles City and County school systems, and the private and parochial school organizations in the area.

Special attention has been given to students and their teachers in the presentation of material to be seen and heard at the Cavalcade. School authorities have made special arrangements for participation of students and teachers in the Cavalcade and both will receive formal credit for attendance.

The Cavalcade will present dramatic motion pictures, graphic exhibits, informative lectures and demonstrations on all phases of health and medical progress.

The nation's top medical schools and universities, the American Medical Association and other scientific institutions will provide exhibits for the vast, educational "floor show."

A working model of the world's first nuclear reactor designed specifically for medical research—which President Eisenhower took to the Geneva Atomic Energy Conference—will be included among the exhibits. There will be others on aviation medicine and automobile traffic safety.

Also featured will be some 350 illustrative exhibits and demonstrations prepared by leading pharmaceutical companies, medical equipment manufacturers and book publishers, food processors and other firms and agencies engaged in helping the country's doctors promote good public health.

PROGRAM OF SCIENTIFIC MOTION PICTURES

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If you would like to present a scientific motion picture film on this program, you must submit an application for approval not later than February 1, 1956.

Address all communications to:

Arthur E. Smith, M.D., D.D.S.
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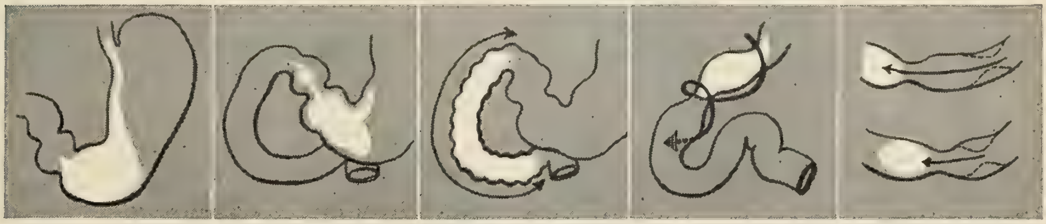

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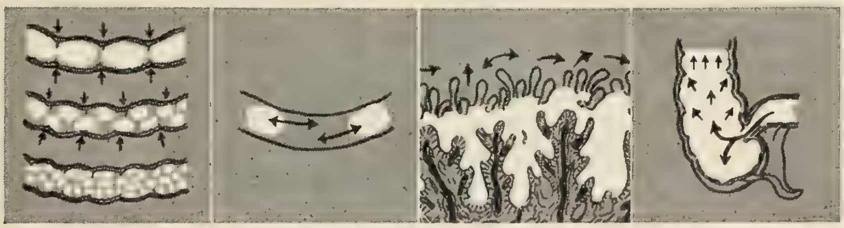

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SEARLE

Two New Drugs Are Effective for Amebic Dysentery

A relatively new drug has proved valuable in controlling intestinal amebiasis, according to a report by six scientists in a recent issue of the *Journal of the American Medical Association.*

The drug, fumagillin (Fumadil) was found to be effective when used during an outbreak of waterborne amebiasis in South Bend, Ind., in 1953, they said. This outbreak among employees of a woodworking plant was the third reported involving civilians in the United States. It presented "a nearly ideal situation" for investigation of methods of treatment, the scientists said.

Previous evaluations of amebacides have been conducted in mental institutions or prisoner of war camps, where the possibility of continued exposure existed. These studies also were retarded by the necessity of treating a small number of persons at one time.

In the South Bend outbreak, a large number of persons was infected, which permitted the simultaneous evaluation of two methods of treatment. In addition, the probable source of infection—a contaminated water supply—was removed before treatment began, they said. The people involved belonged to a relatively stable population, allowing for careful and prolonged study of each individual.

In addition to providing an opportunity to study methods of treatment, the outbreak illustrated the type of teamwork by medical and health agencies available in an American community. This alone would have made the study worthwhile, the authors said.

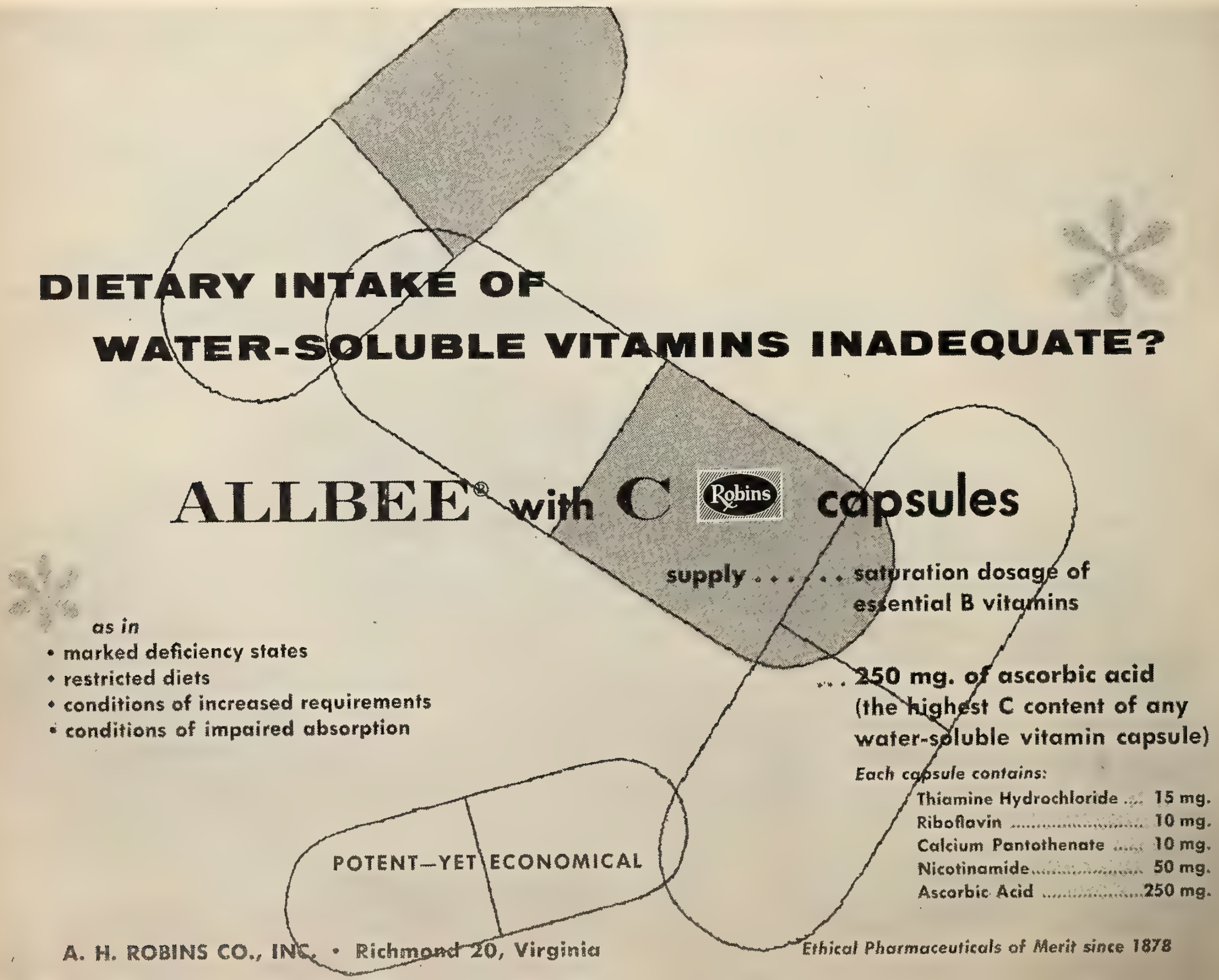
Cooperating in the study were the county medical society, local and state health agencies, the industrial concern, the union, the personnel of the plant, two pharmaceutical firms, a federal health agency, and a school of medicine.

Approximately 800 of 1,500 employees were infected with Endamoeba histolytica. Half of the 800 were treated with fumagillin and half with oxytetracycline (Terramycin), a drug already proved by tests in Korea to be effective against the disease.

After four months of treatment, the organism was found to be absent from the gastrointestinal tract of 93 per cent of the patients treated. Those still infected were then given the alternate drug. A random survey a year later showed that only two of 178 persons were still infected.

The drugs produced similar side effects, but they were usually mild and usually disappeared after completion of treatment, the authors said.

Making the report were Robert W. Sappenfield, M.D., New Orleans; F. R. N. Carter, M.D., and Carl Culbertson, M.D., both of South Bend; Marion M. Brooke, Sc.D., and Fred M. Payne, M.D., both of Atlanta, Ga., and William W. Frye, M.D., Ph.D., New Orleans.



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New Disease Transmitted By Transfusion

An influenza-like illness, discovered by two Chicago physicians, has been added to the list of diseases which may be transmitted by blood transfusion.

The new illness—as yet unnamed—apparently is caused by a virus, which is transmitted only by blood transfusion or injection and not by swallowing or inhaling.

The agent causing the disease was found to survive normal blood-banking conditions. Because of this and the possibility that it may be present in healthy volunteers, it may represent "a potential hazard" in the transfusion of blood, the physicians said in a recent issue of the *Journal of the American Medical Association.*

The disease apparently is unrelated to any of the other diseases transmitted by transfusion. These include hepatitis, syphilis, malaria, smallpox, typhoid, brucellosis, kala-azar, measles, and infectious mononucleosis.

The physicians found the disease while making blood cell survival studies among inmates of Illinois State Penitentiary, Joliet, for the Army Malaria Research Unit, Department of Medicine, University of Chicago. A feverish illness occurred in five or six persons about two weeks after they received blood from the same apparently healthy person. Their symptoms included headache, muscular pain, fever, nausea, vomiting, and upper respiratory involvement.

(Continued on Page 70)

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Born in Lansing, Michigan and educated at the University of California, Jack Field lived in Los Angeles and Alhambra before settling down in North Fresno where he and his wife Mary now make their headquarters in their own home.

Jack and Mary have four children, ranging from Mary, a young woman of twenty, studying dentistry, to Kathleen, fourteen, a football fan, Sharon, nine, Girl Scout and John, six, a fisherman and ballplayer. Jack Senior has no spare time. When daughter Mary isn't checking his teeth, he's taking Kathy to a football game, skippering the Mariner Scouts with Sharon, playing baseball with Jack Junior, or active in his church work.

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Like all Boyle & Company representatives, Jack knows the value of your time and will not abuse it. Ask him a concise question and you'll get a concise answer, but if you're free to pass the time of day, you can talk to him about Scouting, baseball, football, dentistry . . . . . . and Boyle & Company.

Representative of the men chosen as Boyle & Company V.I.P's, Jack is always completely up to date on the latest developments in pharmaceuticals. So when Jack, or the Boyle & Company representative in your area calls upon you, feel free to ask him about any of the Boyle & Company products shown on the following pages. We will welcome your questions, comments or suggestions.

"Head Injury Epidemic" Could Be Prevented

The only cure for the "head injury epidemic" now sweeping the country is prevention through safer automobile construction, a California neurosurgeon said recently.

Head and neck injuries account for nearly 70 per cent of all auto crash deaths, Dr. C. Hunter Shelden, Pasadena, said in a recent issue of the *Journal of the American Medical Association.* In spite of the "most concerted efforts" of neurosurgeons, the severe head injury is fatal, for once the brain is injured beyond a certain degree, there can be no recovery, he said.

Last year there were 5,200,000 reported auto accidents, 1,500,000 resultant injuries, 100,000 persons totally disabled, and 38,000 deaths—"rather lethal statistics to refer to a so-called pleasure car," Dr. Shelden said.

Pressure is developing that will bring about safety improvements, but so far there has been "much smoke but no fire," he said. Changes must be made at once and not in a piecemeal manner. "Such a delaying action may be a satisfactory policy in business, but not in a matter of health and public safety. Translated into medicine, it would be comparable to withholding known methods of livesaving value," he said.

Engineers have supplied valuable safety ideas, but they have had only limited use, because the automobile industry "apparently is governed entirely by the cost accounting division," he said. No new idea can be adopted unless it reduces present costs or promises better sales.

However, safety is the one feature that the public will accept if given the opportunity, without the need of propaganda and expensive advertising, he said.

Because no company can afford to undertake an immediate and complete safety program, Dr. Shelden suggested that a national group be set up to regulate and approve automobile safety, allowing industry to pool safety ideas, standardize construction methods, and avoid competition.

Dr. Shelden outlined some suggestions for improved auto safety, pointing out that if a medical research group can devise safer construction methods engineers could come up with even better ones.

Of particular concern in preventing head and neck injuries is seat construction, which Dr. Shelden called "a disgrace to the combined engineering staffs of the automobile industry." Seats are designed for comfort and not for safety. The fixed portion of the seat is fastened to the frame only by four small bolts, which allow frequent seat failures. Seat cushions are not securely fastened, are easily torn loose and tossed about in a crash, and can cause a fatal injury.

Poor seat design accounts for thousands of "whiplash injuries," which occur when the car is struck

(Continued on Page 66)

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Le Van, P., Sternberg, T. H., and Newcomer, V. D., Cal. Med., 81: 210-213, Sept. 1954.

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"Head Injury Epidemic" Could Be Prevented

(Continued from Page 64)

from the rear. With the impact, the head is thrown backwards. Since the seat back is low, the top of the seat serves as a fulcrum over which the neck is snapped. Whiplash injuries are the most disabling of all nonfatal auto injuries, he said.

Dr. Shelden suggested that a small elevated portion of the seat be placed directly behind the head—not high enough to support the head while driving but high enough to give the head support if the neck is suddenly extended.

He also said a method that would rigidly attach both doors to the outside edges of the front seat backs is needed. This would hold the doors tightly shut and prevent the front seat backs from flying forward. A better locking method is necessary to keep passengers from being thrown from the car. Between 25 and 35 per cent of all deaths occur in this manner.

There has been some improvement in interior projections, but dashboards still have dangerous knobs and buttons that can "easily produce" serious depressed skull fractures in a crash, he said. He also suggested the addition of a roll bar to prevent the crushing of the passenger compartment if the car rolls over.

He said current safety belts with two straps are inconvenient, because the free ends when not in use lie across the seat, fall out the door or on the floor. In order to fasten the belt, both hands must be taken from the wheel and attention turned from the road. A belt that rolls up when not in use and can be fastened with one hand would improve the situation. Until improved designs are available, the public is not going to take full advantage of safety belts, he said.

"Eventually a method must be developed whereby the passenger is automatically and instantaneously restrained during a crash," he said.

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New Disease Transmitted By Transfusion

(Continued from Page 62)

Later the disease was transmitted to more than 30 healthy individuals by transfusing blood from infected persons while they were in either the acute or convalescent stage. The course of the illness was similar in all the patients, and did not become less severe with successive inoculations.

Most of the patients recovered quickly after the acute attack, but a few suffered relapses. Some developed painful stiffness of the joints one to five weeks after the acute stage, while others had recurrences of the original symptoms 12 to 16 weeks later.

Making the report were Dr. Ernest Beutler, Department of Medicine and the Argonne Cancer Research Hospital, University of Chicago, and Dr. Raymond J. Dern, Department of Medicine, Stritch School of Medicine, Chicago.

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Hypnotism Suggested for Some Childbirths

While hypnotism will never replace chemical anesthetics in childbirth, it is proving "a powerful ally" in reducing fear, pain and other difficulties, a Chicago physician recently stated.

During the past decade it has received increasing recognition by surgeons, physicians, dentists and clinical psychologists as they attempt to build "a new science from the foundation of an ancient art," Dr. Sol T. DeLee said.

Dr. DeLee, attending physician at the Chicago Maternity Center, outlined advantages and disadvantages of hypnotism in pregnancy and labor in a recent issue of the *Journal of the American Medical Association.*

No longer "shrouded in mysticism," hypnotism is considered an established psychological aid. It is a method of inducing relaxation, during which susceptibility to suggestion is increased, he said. Under hypnosis a person may accept an idea uncritically, which enables him to behave in the sought-for way.

With hypnosis, he said, a woman is likely to have a more pleasant pregnancy because she accepts the suggestion that she will feel little or no pain. Hypnotism may create a better mother-child relationship because the mother has the sensations of childbirth but no pain or unpleasant memories, he said.

Elimination of pain decreases shock and speeds recovery, he said. Amnesia for part or all of the labor and delivery also can be achieved if the patient wishes.

Under hypnosis the patient cooperates more fully than under chemical anesthesia, which frequently interferes with the normal mechanism of labor, Dr. DeLee said. There are no undesirable after effects from hypnosis as with most anesthetic agents. It is also useful for persons allergic to other anesthetic agents.

However, hypnosis can be induced in only about one out of four patients and even in these it may not be complete, the author said. Whether it can be induced is mainly up to the patient. She must want to be hypnotized, must be susceptible to suggestion, and must achieve a harmonious relationship with her physician.

One of the major disadvantages is that it is time-consuming. The pregnant woman must be hypnotized a number of times during her pregnancy so she will be prepared to respond properly to suggestions during labor and delivery.

Until its value is more fully understood and accepted, hypnotism is best used by the physician only at the patient's request, he said.

New Method for Aorta Surgery Described

When the aorta, the main trunk of the circulatory system, needs surgery, physicians face the problem of performing the operation without cutting off circulation.

The problem is especially difficult in the arch and descending aorta, the parts lying in the chest, for "irrevocable damage" to the spinal cord may occur if the blood flow is shut off too long.

However, a Boston physician, Dr. Herbert D. Adams, reported in a recent issue of the *Journal of the American Medical Association* that he successfully performed two operations on the thoracic aorta without once stopping the flow of blood. He used a method already found successful in operations on the abdominal aorta.

Both operations were for the removal of aneurysms, sac-like bulges in the sides of the aortic walls.

In his operations, Dr. Adams used an aortic graft, which he inserted as a shunt or by-pass around the aneurysm. While the graft was being inserted, the blood continued to flow through the aorta. After the shunt was in place and the blood was flowing through it, the aorta was clamped shut and the aneurysm removed.

In one of the cases, involving a "huge" aneurysm, the two ends of the aorta were closed and the shunt left as the permanent passage for the blood. In the other case, a second graft was placed between the ends of the aorta as a replacement for the diseased portion and the shunt removed. In both cases the grafts functioned successfully, Dr. Adams said.

Specialist Seeks Help in Heart Attack Survey

Dr. Paul Dudley White, Boston heart specialist, recently asked his colleagues to help him find out how many other Americans have had heart attacks like that of President Eisenhower.

In a letter published in a recent issue of the *Journal of the American Medical Association*, Dr. White asked physicians to send him information about their own cases of acute coronary thrombosis, which is more in the limelight than it ever was before the President's illness.

He asked the doctors to supply the following information:

The number of patients with unquestionable acute coronary thrombosis in their practices who became ill during the month following the President's attack —September 24 to October 23, 1955, inclusive; the sex, age, occupation, and national origin of each patient; and the length of time between onset of illness and any deaths.

Dr. White asked the physicians to answer even if they had had no cases during the period. He also asked them to give details about patients who became ill with coronary thrombosis before June 25, 1955.

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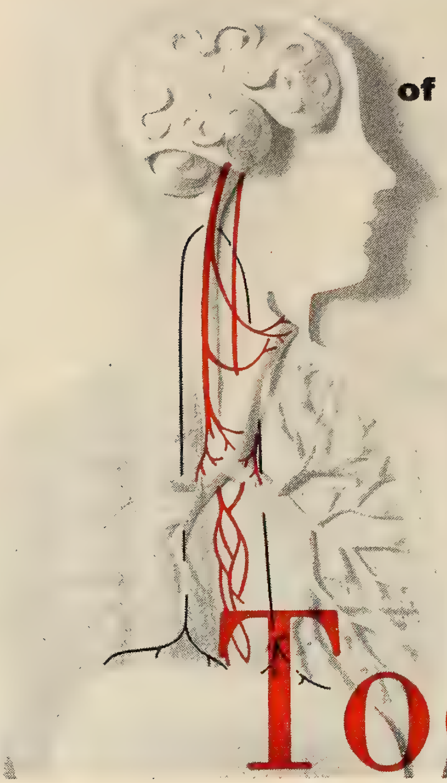

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